MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

VOL. XV. No. 14. WEEKLY. | BALTIMORE, MAY 11, 1889 | $4.00 A YEAR. SINGLE COPIES, 10 CENTS.

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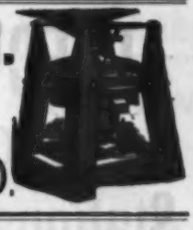

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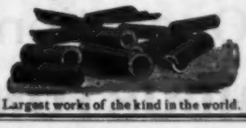

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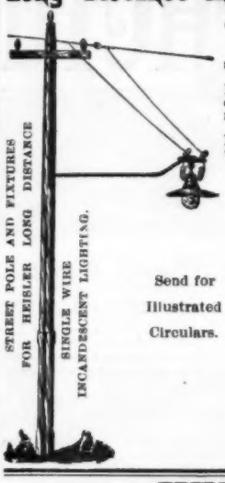

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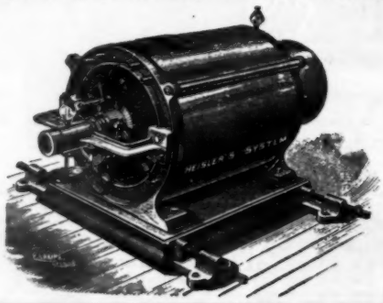

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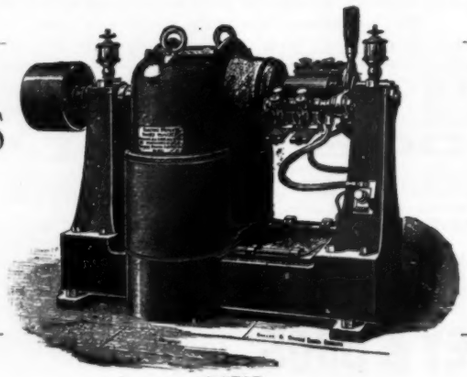

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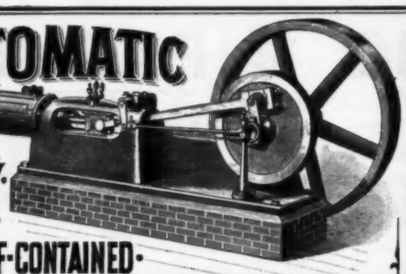

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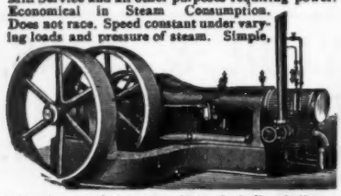

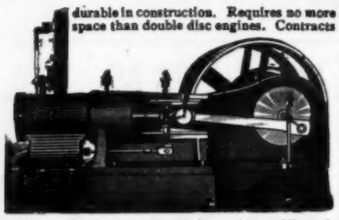

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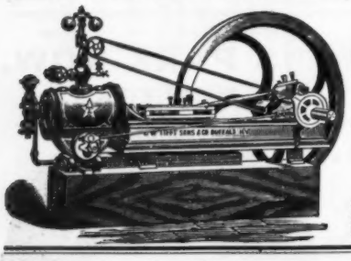

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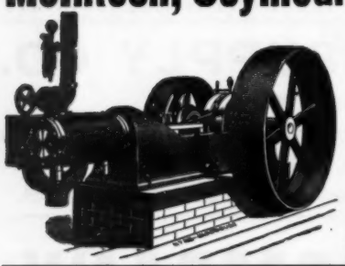

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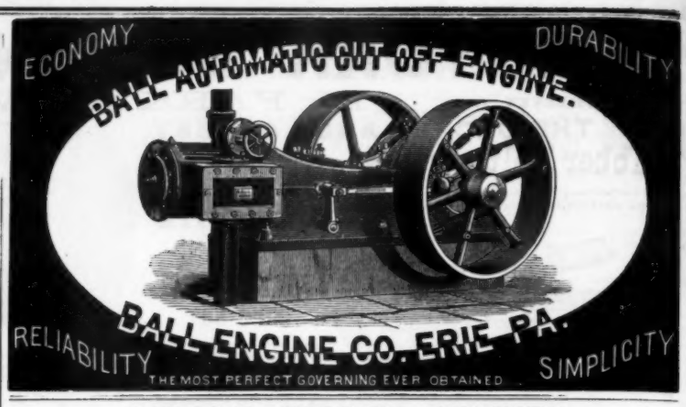

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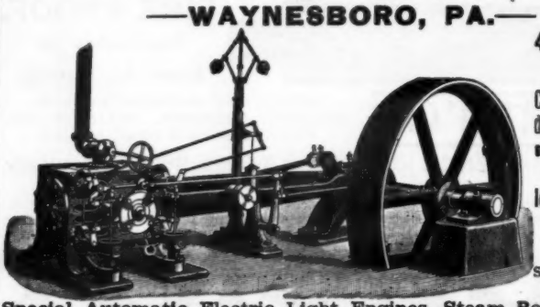

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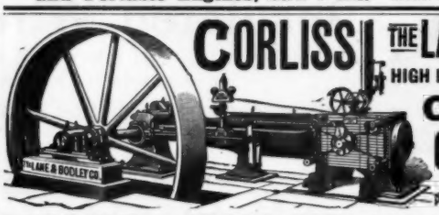

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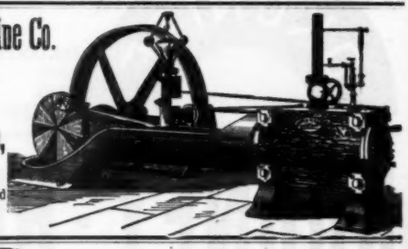

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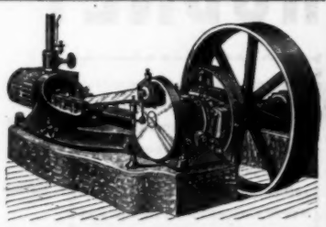

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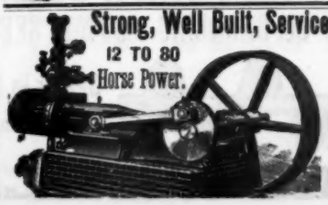

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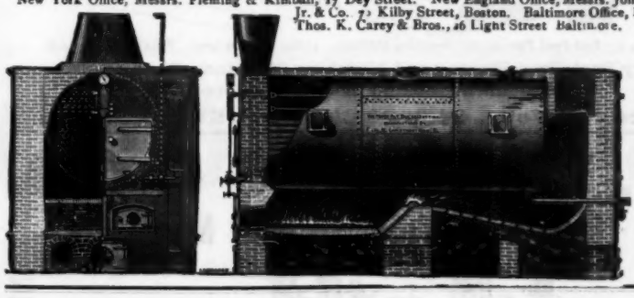

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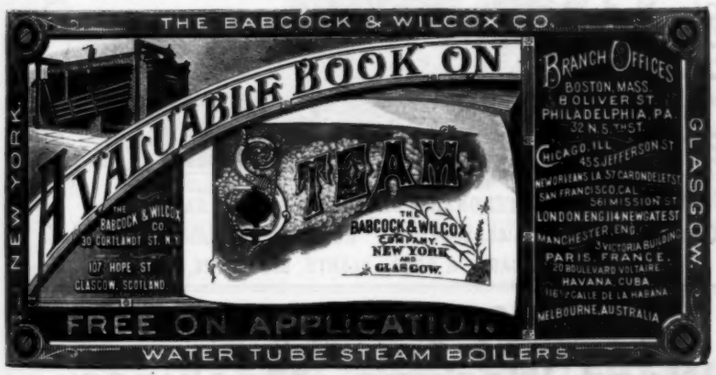

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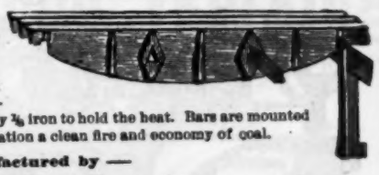

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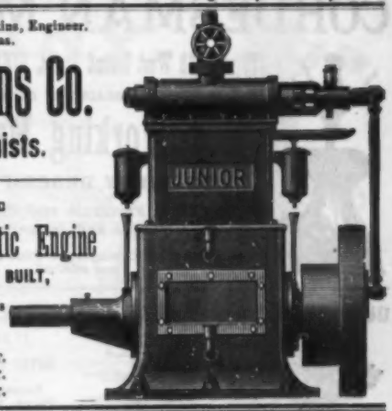

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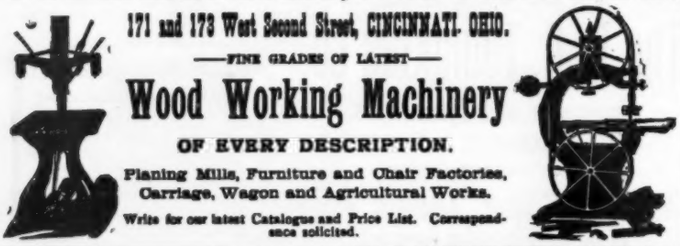

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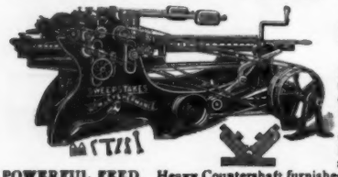

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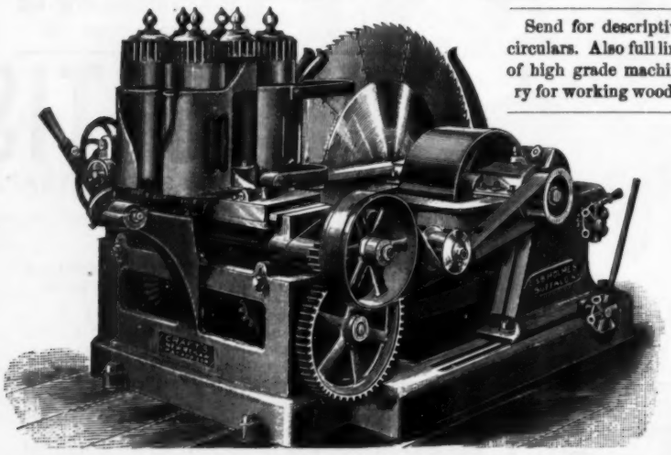

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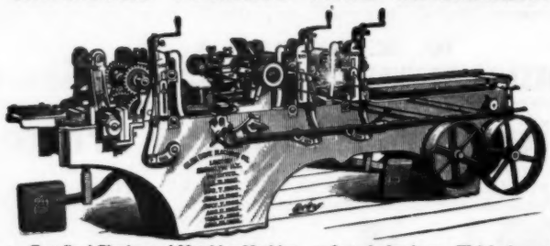

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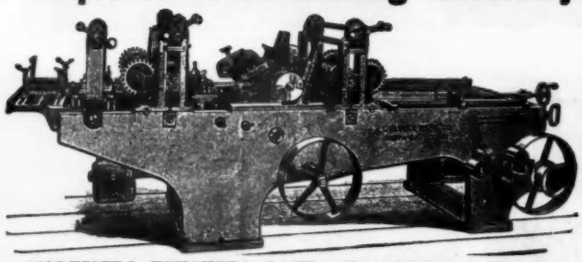

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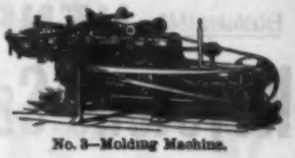
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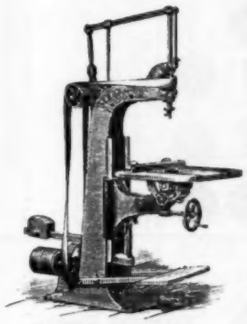
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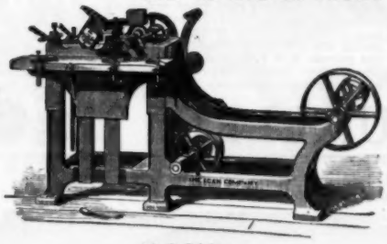
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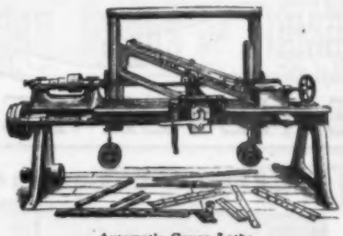
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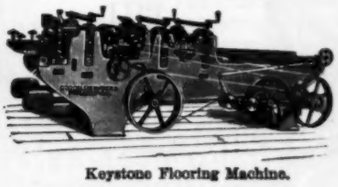
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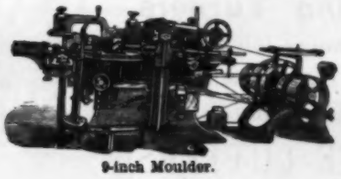
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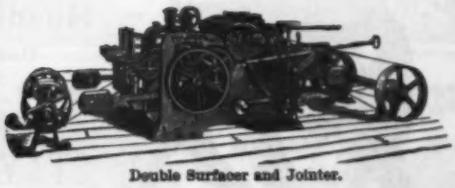
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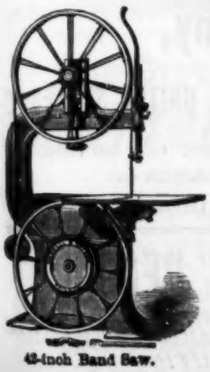
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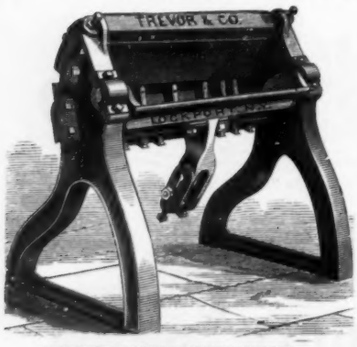

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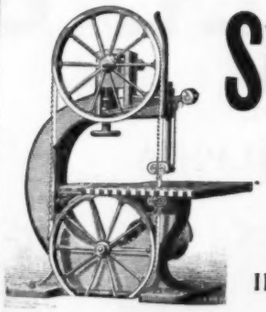

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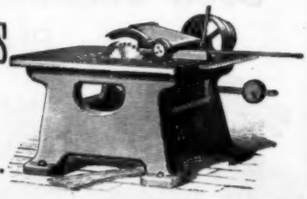

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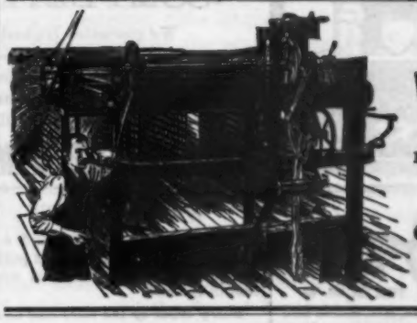

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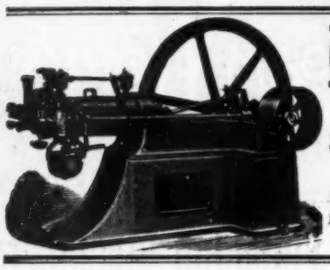

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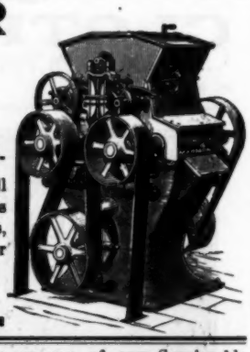

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BALTIMORE, MAY 11, 1889

A Big Excursion.

Mr. W. P. Rice, the remarkable financier, whose ability to command practically unlimited New England capital was spoken of in our last issue, and who, in connection with Dr. J. M. Ford, organized the recent large excursions of capitalists to Fort Payne, Ala., and Denison, Texas, which resulted in the investment of over $2,000,000 in the latter place, is now getting up a still larger excursion. This will leave Boston May 18th for Fort Payne and Denison. This will doubtless be the largest and wealthiest body of capitalists which has ever gone South at one time. There will be several hundred at the lowest, and it is expected that there will be about 1,000 leading New England manufacturers and bankers in it. It is understood that there will be 5 to 10 special trains of palace cars, all of which will leave Boston on the same day. The influence of such an excursion as this upon the whole South can scarcely be overestimated. While Fort Payne and Denison will reap the direct results, the indirect benefits will be felt upon this entire section. It is but another sign that points to the southward flow of New England's money and brains. Mr. Rice is doing a work for the South—doing it, of course, to make money—which will bring untold millions of dollars to this country.

Invest Small Savings

Two of the most powerful factors in the building up of any community are building associations and savings banks. The one permits the erection of homes by the working classes which could not otherwise be readily secured, and the other enables the moderately circumstanced to lay by small amounts which ultimately reach considerable proportions. There is no doubt that the foundation of the thrift of the working people of New England is the savings banks deposits made in that section. We should be glad to see a savings bank and a building association established in every Southern town. Such organizations would have the effect of combining local capital, and could not but prove beneficial. We would urge our Southern friends, therefore, to pool their savings and invest them in home enterprises.

The South to the Front.

To the close student of industrial workings in the United States, the ultimate supremacy of the South in the manufacture of cotton, iron and wood is all but manifest. This judgment is based upon obvious facts, and is largely strengthened by the Southward trend of industrial development. For instance, the Richmond Locomotive Works the other day secured the contract for furnishing the engines and boilers for the United States battle ship Texas. The contract calls for the expenditure of over $600,000, and will give employment to a large number of hands. Ten years, or even five years ago, the securing of such a large contract would have been impossible in the South, as no plant of sufficient power to execute it was in existence. This contract, taken in connection with the opening of the great dry dock of the Chesapeake Construction Co. at Newport News, Va., last week, the largest in America, and the establishment of an extensive iron shipbuilding yard at the same place, now under way, are fraught with great meaning for the future of this section. These things point to the development of vast shipbuilding interests in the South. The South, however, is not only progressing in the matter of establishing new industrial "plants," backed by home and outside capital, but is also compelling the transfer of various industrial establishments from the North to this section, especially cotton mills and iron works.

The Providence, R. I., Journal, one of New England's leading dailies, in commenting on the contemplated removal of the Whitefield Cotton Mills from Newburyport, Mass., to Spartanburg, S. C., discusses the relative advantages of the South and New England for the prosecution of cotton spinning, and comes to the conclusion that the day of New England's supremacy has passed. The Journal recognizes the fact that the South is a formidable and constantly growing competitor with New England in the cotton spinning business. It acknowledges, too, the South's exceptional advantanges in the way of ready supply, cheap labor and saving on freight, etc. The removal of the Newburyport Mills prompts the Journal to inquire whether the final result will not be the transfer of the entire New England cotton industry to the South. Discussing this subject it says:

> Heretofore, however, it could not be said that this gain in the cotton manufactures of the South was at the immediate expense of New England. That is, the increase of Southern cotton mills was not accompanied by a corresponding decrease of Northern mills. The announced removal of this Newburyport establishment, however, must suggest a question as to whether it is likely to be followed by other removals that will ultimately take the whole cotton manufacturing industry away from New England. It would not be surprising if this should prove to be the result. The tendency of all the great manufactoring industries is undeniably away from this section, and for obvious reasons. The iron, steel and copper industries are already practically gone. Why should not the cotton industry follow? The South offers, as everybody knows, exceptional inducements. Against them, it is true, New England can place certain advantages of its own—its well-established plants, the greater experience of its people, their superior skill, both mechanical and commercial, and the ampler supply of capital. These, however, are advantages that the South can ultimately obtain for itself; but its own natural advantages New England can never hope to have. It would not be surprising, therefore, if the latter section should finally cease to be a cotton manufacturing center. The change, if it comes, will come slowly; it may not come at all; it can, we think, be averted. But it should be kept in mind as among the possibilities.

These are strong statements to come from such a source, even though in the closing lines the Journal seeks to comfort its people with the hope that this transfer of the cotton trade can be averted. Its remedy is a change of the tariff, which it believes would enable New England to save itself by developing a foreign market for its cotton goods. But it admits that it would not be surprising if continued removals of cotton mills to the South should "ultimately take the whole cotton manufacturing industry away from New England." The removal of the Massachusetts mill, mentioned by the Journal, to South Carolina is followed by the removal of two large mills from Philadelphia to Florence, Ala., which is capturing many Northern prizes.

The cotton industry and the iron and steel industries as well, are destined to be domiciled in the South, where the greatest natural advantages are to to be found for their successful and profitable prosecution. Of course the North will continue to operate cotton mills and iron furnaces, but it is clear to the least observant student of the times that the theatre of activity in manufacturing for the next half-century will be the South. The multiplication of Southern cotton factories goes on at an amazing pace, and the removals of Northern "plants" to Southern sites is becoming quite frequent. It would appear that the next decade will close with the South in the lead in the textile industry.

WE commend to our readers the article upon The Nicarauguan Canal, by Mr. E. W. Clark, of Washington. The South has a greater interest in the construction of this canal than any other section of the country, and the South will reap the largest benefits from it. In the new era of prosperity which is now dawning upon this country and the development of our merchant marine and our trade with South America, the South is destined to lead the way. Mr. Clark graphically tells of the vast benefits that are to accrue to the South from this canal. The South must push out for a position in the markets of the world, and already its foremost business men, seeing this, are bending all their energies in that direction.

Big Steel-Making Enterprise for the South.

The MANUFACTURERS' RECORD learns from reliable sources that there is a movement now being made in the South which, when consummated, will be of far greater importance in developing the iron interests than any that has occurred in the past. This, we know, is saying a great deal when we reflect what the South has done in the past, but those who know the capacity of this section for the future need not be surprised at such a statement, for during the last few months some of the greatest iron men in the country have been visiting the South and quietly going over the coal and iron fields, and through different agents many of the most valuable deposits of iron and manganese ores have been purchased. As is well known, there are large bodies of ore lands where the ores contain large percentages of phosphorus, which makes them well adapted for the manufacture of basic steel. It now develops that the purchasers of these lands have had this in view, and will, as soon as their intentions can be perfected for this object, form one or more companies for the manufacture of basic steel. This question has been agitated, we know, in some parts of the South for several years, but only by parties who have not had the experience or the means needed to put such an enterprise into successful operation. But from what we learn those who will take hold of the subject now are men who wield unlimited capital and have had all the experience necessary to force the enterprise to a successful issue. As much of the iron ore of the South contains every property that the ores do in Europe from which the basic steel is being made in such large quantities and with such success, why should not the same process be made available with the Southern ores? Moreover, some extensive Bessemer ore fields will shortly, in all probability, be developed in the South, but basic steel making is now to be introduced by men whose names will guarantee success—men who stand in the very front ranks of America's iron and steel interests—but for the present we are not permitted to give their names; possibly those who have been carefully studying recent events can guess them. We repeat the future is much more pregnant with large results and greater prosperity than any period in the past. The manufacture of steel on a large scale is soon to be added to its industries.

THE Daily News, published at Pensacola is the only morning daily paper in West Florida. Its sworn average daily circulation is 1,512. As Pensacola is to be one of the world's great ports of the future the News holds a commanding position.

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SHELBY, as stated in the MANUFACTURERS' RECORD some weeks ago, is to be thrown open to the public. This will be another center of attraction for New England money and brains. The extensive iron enterprises there now are owned by New England people, and as they have decided to build up a large town, they are going to push matters with the usual vim of that section. Capital will pour into Shelby very freely and a rapid industrial growth may be looked for. It starts on a foundation as solid as Anniston's was some years ago when that place was opened to the public. Anniston, like Shelby, had profitable iron industries in full operation, and the whole town was owned by one firm. They saw the opportunity and opened Anniston to the public. Its growth has been marvellous, and to-day its industrial interests represent $16,000,000 of invested capital, or more than the total capital invested in manufactures in the whole State of Alabama in 1880. Shelby has the same ground-work, and its growth ought to surpass even Anniston's record, because now everything is tending Southward, while Anniston had for years to contend against the influences which sought to retard the industrial progress of the South. A letter in this issue of the MANUFACTURERS' RECORD gives some facts about what is to be done at Shelby.

TIN PLATE is to be made in America. To do this profitably a large plant and heavy capital are required. These have been obtained by the consolidation of the North Chicago Rolling Mill Co. with two other steel-making corporations. The first steel rails made in America were produced at one of these establishments, which will be part of the big plant of the pioneer tin-plate manufactory of the United States. Our country spends from $20,000,000 to $25,000,000 annually for foreign plate. That and much more will be kept at home when American mills are fairly in operation. It was sneeringly said by a supporter of the Mills' bill, when that measure was under discussion in Congress, that this country could never make tin plate, for we had neither tin ore nor the skill to utilize it in plate making; consequently there ought not to be any duty on the plate. Certain newspapers were fairly damp with sympathy for the poor workman whose tin dinner pails and cups were burdened with this "unjust taxation." But the duty was retained, and the assurance that it will be has given confidence to capital to engage in this new industry. Meanwhile prospectors have explored the Black Hills of Dakota and have found in them inexhaustible stores of this valuable ore. In the Appalachian chain, in Virginia, Kentucky, Tennessee and North Carolina, tin has been found and the deposits are now under examination to determine their extent and the quality of the ores. This manufacture will give employment to thousands of miners, to smelters, to steel rolling mills before the last operation of making tin plates can begin. Thus the sneer of an ignorant Congressman will be rebuked by overwhelming facts.

THE improvement in the financial credit of the South was strikingly illustrated last week in the sale of $150,000 of 6 per cent. bonds by Anniston, Ala. There were bidders from Baltimore, New York, Wilmington, Del., Chicago and Birmingham, besides from local capitalists, but the entire issue was awarded to Messrs. Fisher & Shaw, bankers of Baltimore, at 103.61. While Anniston is to be congratulated upon this high tribute to its credit, this sale has a broader meaning than simply as proof of the esteem in which "The Model City" is held by capitalists. It means that Southern cities, which, like Anniston, are built on a solid foundation, and are pushing forward as vigorously as that young industrial giant, need no longer pay 7 and 8 per cent. interest, and even more, as many have done, for money needed for improvements. The MANUFACTURERS' RECORD congratulates Anniston upon having made such a signal success in the selling of these bonds, and it congratulates Messrs. Fisher & Shaw upon having secured a safe and solid investment. The $100,000 of bonds previously issued by Anniston were taken in Baltimore also, so that the entire bonded indebtedness of that town is held in this city.

The Oklahoma Boom.

The country has witnessed a remarkable spectacle in the past two weeks in the opening and settlement of the new territory of Oklahoma. It is singular that thousands of people should crowd into the new Canaan when millions of acres of far superior land are open for settlement in the Southern States. It is quite likely that the overflow of immigration to the new territory will be accommodated in Texas, Arkansas and other sections of the Southwest. There are infinitely better homes to be found in Texas than in the Indian Territory.

The Lone Star State has 34,000,000 acres open to homesteaders exclusive of school lands. The present territory of Oklahoma cannot accommodate the crowd who will seek homes within its confines. The result will be the peopling of the vacant acres of the Southwest by the disappointed surplus. The opening of the territory will have a tendency, too, to divert the march of immigration from the Northwest to the South, and will ultimately redound to this section's benefit, especially when it becomes known that upwards of 300,000,000 acres of good land are subject to homestead entry, or can be had at a nominal price in Florida, Alabama, Arkansas, Mississippi, Louisiana and Texas.

Put Idle Capital to Work.

The South undoubtedly owes much to the Northern and foreign capitalists who back their faith in her future by the investment of their capital in various industrial enterprises in this section. It is to be noted, however, that the South itself has vast sums of idle or unemployed capital which could be invested to advantage under proper conditions. These conditions would, probably, be best secured by the organization of improvement companies, with capital running from $50,000 and upwards. There is scarcely a town of 5,000 population or more in the South that could not readily organize one or more of such companies. The prime agency in building up a town is to offer liberal inducements to manufacturing concerns in the way of exemptions from taxation, subscriptions to stock and the like. There is no reason why Virginia, Alabama, Georgia, Tennessee and, in fact, each of the Southern States should not be dotted with manufacturing towns as thickly as are New England, Pennsylvania and Ohio.

It should be the aim of the citizens of every considerably sized Southern town or city to organize an improvement association, and induce the establishment of manufacturing establishments. Providence helps those who help themselves, and the South must put forward her best energies, and take full advantages of the grand opportunities with which she is confronted.

THE Aberdeen, Miss., Examiner commenting on a statement to the effect that money is scarce in the South, says:

> It is not surprising that this ignorance in regard to the South should so generally prevail in the North and West when we remember that our Congressman at the National capital and the press of this section generally, are continually harping upon the subject of the poverty of our people and the scarcity of money in this region; whereas, every village bank in the South is loaded down with unemployed capital, and every town—as has been notably proven in the "booming" of Birmingham, Decatur, Florence, Sheffield, Anniston, Chattanooga, Bessemer and other places of phenomenal growth—has thousands of dollars ready to be invested in corner lot speculations.
>
> The fact is that no country in the world has more unemployed capital in it than the South, and wherever leaders appear who are capable of impressing upon the people the utility and power of co-operation, the towns blessed by their presence rise in the development of their latent strength and march right to the front.
>
> This thing of waiting for outside capital to take the lead is as vain a waste of hope and strength as watching for returns from a lottery investment. Either may come but neither is probable.
>
> Outside capital is attracted by inside activity and progress. Men rush to invest where they see others investing, and they build mills and factories alongside such mills and factories as are already declaring dividends.
>
> The outside capitalist is not likely to be a pioneer in new fields, but he is always ready to reinforce and share the gains of enterprises founded by local capital and that indicate local spirit and local confidence.

New Birmingham, Texas.

In a letter from Denison, Texas, published in the MANUFACTURERS' RECORD of last week, the belief was expressed that "Texas will undergo in the next five years a greater industrial development than Alabama has in the last five. In fortification of this belief we point to the facts set forth in a letter in this issue from New Birmingham, Texas, a new town that will itself be an important factor in bringing about a verification of the prediction just referred to. The writer of this was himself at New Birmingham two weeks ago and saw there much to confirm his faith in the industrial future of the State. The value of the ores of this locality is shown by analyses, and is practically attested by results obtained at a furnace a mile from New Birmingham. This, at present the only furnace in Texas, was built by the State to demonstrate the utility of these ores. It is operated by convict labor, and has been running about four years. There is a demand for its product greater than the capacity of the furnace to supply from car-wheel works and for other uses requiring the best iron that can be made. In connection with the furnace there is a pipe works and also a foundry. This foundry made the castings for the capitol building at Austin, the finest State building in the Union. The immense castings for the dome, weighing in the aggregate 800 tons, were all made there, and of all the work done for this building not a single casting was rejected.

As will be seen from the letter published elsewhere, New Birmingham is fortunate in the possession of the three essentials of success in a town-building enterprise, natural resources, brains, money. Its resources and advantages are great in variety and in extent; its promoters are wise, able and energetic men, and they have at command abundant capital. What they have already accomplished is a marvel, considering the short time within which it has been done.

New Birmingham will be forever notable as the pioneer iron making town in the State, and when Texas shall have become an industrial empire, great in manufactures as it is now in agriculture, among the cities that will be scattered over its wide area, built on manufactures, New Birmingham will enjoy the interesting distinction of having been the leader in industrial achievement, the first to attract attention in a practical way to the iron resources of the State, and the first to seek to utilize them.

TO OUR esteemed contemporaries, the "funny papers" of America. The "Ladies Natural Gas Co." has been organized at Bradenburg, Ky., to bore for natural gas—now for the best joke on the subject.

Subscribe to the MANUFACTURERS' RECORD.

THE NICARAUGUA CANAL.

The Challenge for the South Pacific Trade.

Shipbuilding and Commercial Development Called For in the South.

By E. W. Clark, of Washington, D. C.

[For the Manufacturers' Record].

The nations of the west coast of South America, separated hitherto from the United States by tedious distances, have been reached for commercial purposes principally by sailing vessels around Cape Horn, an uncertain voyage through tempestuous seas. Accordingly their commercial intercourse with the great republic has been restricted. Colombia, Ecuador, Chili, Bolivia and Peru, with a territory aggregating nearly two million square miles, or, omitting Alaska, two-thirds the area of our own country, ought to be tributary to us in their trade and commerce, as they resemble us in their systems of government. But our flag has been seldom seen in their ports, while Great Britain, France and Germany have contested with each other for the bulk of the commerce.

The subduing, settling and developing of the immense virgin territory of our own domain, together with our loss of commerce during the civil war, accounts in part for the meagre west coast trade; to the interposition of the long transit around Cape Horn we must ascribe the rest. But now arises a new element in the world's development. The bulwark which nature, in launching the world, established between the mighty waters, is about to be riven asunder by the enterprise and energy of the indomitable Yankee nation. A new order of things is to be ushered in with the building of the Nicaraugua canal.

Realizing the grandeur of the conception and the splendid physical achievement involved in its execution, it is yet difficult to make a forecast of the far-reaching influence and great results to follow the completion of this magnificent undertaking. That it will accomplish a revolution in the world's transportation routes seems not to admit of dispute, but what and how much will be involved in this revolution are hard problems. Hitherto the great water routes have been generally from the east to the west, and the cutting of the African Isthmus but gave freer scope to this custom of the centuries. Poured through the new gateway of the oriental seas, a vast commerce has swept into the Mediterranean and enriched the ports washed by its waters, while adding incalculable gains to the great terminal cities of France and Great Britain. But this new ocean channel is a quite different thing. It means utter and absolute change—a positive reversal of the tides of the earth's commerce. There have been great ship canals before, and there are other great ship canals now being built, besides the one under notice, but there is none such as this. This severs the final barrier between the oceans and completes man's conquest of the sea. It finishes the circuit of empire and turns the tide. Hereafter people may seek the west by way of the east. But one paramount result will be to make the great republic the focus of the world's advancement in every department of activity and enterprise.

THE DISTINCT PART OF THE SOUTH IN THE CANAL.

In this Titanic work, involving colossal results, every nation and people may share, but there will be degrees in the advantages which it will confer. Those near by, in the center of the movement, so to speak, ought to reap the greatest benefit. They will, if prepared to seize the chances as they offer. Of course the South will share in whatever gains ensue to our common country. But has she not a special part in the work and a distinct destiny in the splendid results which are to be wrought out? She is in the line of the first expansion to ensue upon the completion of the new highway of commerce. Will she appreciate the opportunity? Will she improve the occasion? Will she be prepared?

This canal can be completed in six years, say the estimates. With the earnest co-operation of all our people it can be completed in much less time. The South has an immense stake in the enterprise. Ought she not particularly to help? In your issue of March 16 the writer glanced at the influence to be exercised by the great ocean channel upon the future of the gulf ports. It is pertinent to advert to her immense development already effected, and which seems but the beginning of an expansion promising to be of phenomenal and stupendous proportions.

ENORMOUS RECENT DEVELOPMENT OF THE SOUTH.

The intelligent reader of your journal and of the newspapers cannot fail to observe in the busy notes of preparation all over the country the herald of a growth unexampled in our national history. The country is in a ferment of industrial development, but especially is this true of the South. If we were to take the growth of one State alone—Alabama for instance—we should find in the wonderful strides she is making business enough to serve as fair growth for the Southern States. A dozen cities in a single commonwealth—ambitious centers of manufacturing industries—already prepared or now preparing with plants for manufacturing all the raw materials into finished commodities. The manufacture of the cotton staple on the spot where it is grown into woven domestic fabrics; the conversion of the cottonseed into oil, into forage, into fertilizer; the refining of the oil; the mining and smelting of iron ores; the conversion of the pigs into finished iron and steel; the manufacture of the iron and steel into useful implements; the conversion of the vast forests into the timber and lumber of commerce; the manufacture of the same into wares and merchandise of wood, of furniture and household utensils; the mining of the inexhaustible stores of coal; the conversion of the coal into coke and of wood into charcoal, the latter as a cheap by-product in the distillation of oil from the pine tree; the mining of the precious metals; the smelting of the same and the fashioning of them into things of use and beauty; the building of cities; the building of railroads; the gathering together and handling and transporting of immense quantities of raw materials and manufactured articles—these are the labors of a great people, and must develop a noble civilization and incalculable wealth. A thousand new manufacturing establishments! A hundred new railroads! The whole South teeming with new enterprises; booming with industrial activity; shouldering and elbowing and hustling its way to the front, full of emulation and rivalry and enthusiasm; every community measuring its strength with every other community—pushing for the goal of business supremacy.

THE SOUTH MUST SEEK NEW MARKETS.

It follows that the South will soon wax fat and her granaries overflow. Her store of the good things of earth will first run full and then pile up. She will have to seek markets outside her own boundaries, and take her place in the barter and exchange marts of the world. "What to do with the surplus" will be a question of greater importance than that of production now is. Accordingly she must have an eye to the future; she must look abroad; she must open out new avenues of trade; she must look to commerce—the railway cannot cross the sea. She must utilize her forests to build ships; she must cultivate her maritime interests; she must go to the people beyond the seas and take to them her wares; she must do battle for a stand in the market places of the world.

SHIPBUILDING AND COMMERCE DEMANDED.

The shipyards of New Orleans must be occupied in launching new craft. Such splendid deep-water ports as Pensacola must be utilized for commerce and for the seat of shipbuilding and manufactures. The one ship railway at the latter port ought to be the forerunner of half a dozen. Here should be coal shipping and iron smelting; here should be manufacturing establishments of every sort; and half a dozen new railways should stretch toward the Northwest and bear away to the interior the products which a vastly augmented commerce should supply, and return for shipment abroad the surplus articles which a myriad busy industries will turn out.

The Spanish-American republics of the Pacific—vast in territory, happily situated as to climate, possessed of a soil unexcelled in richness and varied capacity of production, a surface rising in lofty mountains or extending in fertile slopes and warm luxuriant valleys—have made but slow progress hitherto, partaking too much of the spirit of the Spanish nation, whose eyes are turned towards the past. The acquisition of our Pacific States and their subsequent development have reflected some improvement on these countries and awakened some new growth, but to fully bring them into the progressive light of the nineteenth century they need the stimulus of new trade relations with a people like those of the United States.

RESOURCES OF THE WEST PACIFIC REPUBLICS.

Is this Pacific trade worth contesting for? Let us see. The United States of Colombia still carry on agriculture but rudely as compared with the best methods, and with many obsolete and imperfect appliances; and yet, here are found nearly all the products of the temperate zone, with the addition of coffee, dyewoods, sugar, cocoa, sarsaparilla, hides and tropical fruits, productions which the United States would be glad to bring hither in ships. They produce, besides, abundant yields of silver and gold, which ought to come to our shores in cargoes of ore, the lading of vessels which would carry back manufactured goods of all descriptions, including cotton and woolen cloths, agricultural implements, railway supplies, mill and mining machinery, wagons, carriages, household furniture, refined petroleum, &c. They have also tortoise shell, emeralds, pearls and diamonds which should come to us and enter into our manufactures.

In Ecuador pepper and cocoa attain to their best estate under the equatorial sun; cochineal, rubber, dyewoods and wax abound. These, with lace, gold and silver and pearls would tempt our commerce. Here again we would find a country weak in the manufactured products which we shall have in superabundance, and possessing many products valued by our people and greatly in demand in our markets for direct consumption as for purposes of manufacture.

From Chili we could obtain flax, hemp and other unmanufactured fibres, nitrate of soda, cinchona, wine, gold, silver, cobalt. To the Chilians we would return full cargoes of manufactured articles, machinery, iron and iron ware, their own raw materials fashioned into things of utility.

The improved mining machinery which we would transport to the Bolivians would cause the mining industry to spring up anew, and far famed Potosi would once more pour forth her treasures. Besides gold and silver ores we should get from Bolivia the rare wools of the alpaca and lama and vicuna, besides precious woods and honey.

To Peru commerce brings all things, and manufacturing industries can be said scarcely to exist within her limits; but for the ship she has a most valuable return cargo. If there were nothing but guano to bring away, this alone would create an enormous business; but wool, hides, chinchilla furs, cinchona bark and nitrate of soda, every article of which is valuable and acceptable in the markets of this country, offer immense attraction to the export trade.

MEXICO AND CENTRAL AMERICA.

The whole territory of Central America and the coast of Mexico, looking to the West, may also be taken into the account. The first-named would give us cargoes of mahogany and other furniture woods, and of tropical fruits. From Mexico we should receive pimento, orchilla, capsicum, indigo, pepper, copaiba, ipecacuanha, mahogany, rosewood and ebony, and ores of the precious metals.

The Central American States and Mexico accessible through the Canal comprise in area about 200,000 square miles. Add these to the Pacific republics and we have a domain three-fourths as great as the United States, which through the conquest of man's intellect over the obstructive forces of nature, is lifted up, as it were, and planted at the very doorway of our Southern States—annihilating more than 6,000 miles of distance at a single stroke!

Here, then, is a field for commercial conquest. Could the South ask a better? Here is spread out a Continent with all the favorable conditions: manufactures at a low ebb and abounding in every rare and valuable product of the earth which we import or desire. Every article fashioned by skilled artisans or turned out by perfect machinery may here meet with a remunerative market, while we receive in exchange the costly raw materials which our country does not supply.

IMMENSE VOLUME OF TRADE OPENED BY THE CANAL.

The total volume of the trade and commerce of the countries enumerated will fall little short of—it will more likely exceed—two hundred millions a year! By the geographical and commercial situation of the United States, the principal portion of this vast annual business belongs rightfully to our people. At all events, it is ours to strive for and ours to win by fair battle in the world's open field. To the South belongs the cream of this trade, and hers it may be if she will gird her loins for the contest and enter the lists betimes. Meantime, what amazing growth, what noble enlargement, what prodigious development await the successful competitor for this prize of the Southern shores! Here is rich booty for trade; here is reward for the toiler of the sea; here is fit goal for ambition! Here are lands flowing with milk and honey, with fruits and wines, with spices and sweet-smelling gums, with healing balms and medicinal barks and woods. Lands of the Montezumas and the benign Incas, of the Toltecs and the sun-worshippers! Lands where silver and gold, and emeralds and pearls and diamonds, hidden in cool caves, need but the touch of the skilled hand to call them forth into radiance and beauty; where the ancient peoples called round their temples with plates of precious metal, formed the face of their gigantic sun-god with massive bars of gold, and encrusted their altars with costly gems! Will the South accept the challenge? If she do not, it will pass to other hands.

☞ *If you are not already a subscriber to the* Manufacturers' Record *send us $4 and you will receive it regularly for one year, or six months for $2.00.*

FRANK LESLIE'S ILLUSTRATED NEWSPAPER appears this week with the names of its new proprietors, Mr. W. B. Arkell and Mr. Russell B. Harrison at the head of its title page. These gentlemen are also owners and publishers of that humorous, pictorial Judge, whose bright pictures, queer conceits and thorough-going Americanism have made the fame and fortune of the senior owner. "Frank Leslie's" has been under the management of the brave, accomplished and beautiful woman who heretofore owned it, a credit to journalism and a mine of wealth to Mrs. Leslie. Its editorials have been noted for their brightness, their versatility and their purity. Its illustrations have been executed in the best style of the engraver's art, while the staff of sketch artists has included some of the most able men in that calling.

The new proprietors, appreciating the high standard of excellence heretofore maintained, are determined to surpass it. Their inaugural address contains a promise and sets forth an attractive programme. This is the promise:

It will be the endeavor of the proprietors of Frank Leslie's Illustrated Newspaper to make it so instructive and attractive as to be a family necessity. This is a carefully considered purpose. It cannot be done in a day, as growth, blossom, fruit and maturity all require time, and the best of energy can work no miracle. The public, growing from "that it feeds on," becomes more and more exacting. The skill of twenty years ago is unsatisfactory to-day. It is demanded of the illustrated paper that not only shall it present art in its best and highest forms, but also be the picture gallery of the world. Its mission and its duty broaden hourly in this swift age in which, if life be measured by knowledge and experience, rather than by the swing of the pendulum, the youngest of us is older than Methusaleh.

There is so keen a hunger for the sights of the shifting panorama of life that the mental repast is incomplete if the world is not served like a sliced orange for dessert. As the horizon widens, crowding events demand compressment. The eye cannot wait to compass a column of description when, with a glance, it can traverse Africa in a picture, explore Egypt in another, and in the turning of a leaf pass from the land of the pyramids in one hemisphere to the almost as ancient homes of the cave-dwellers in another.

An illustrated newspaper opens with its telescope all lands, and with a stroke of its pencil explores more swiftly than Aladdin's *genii*. It introduces its readers to the great men of all climes; it is the phonograph of speech whose utterances have ceased and the telephone of tongues still talking.

The programme includes not only the pictorial illustrations thus comprehensively described, but also an announcement of its scope and policy. Editorally its attitude will be positive and decided. Its convictions on all questions will be asserted with emphasis and vigor. It will not set up any creed as infallible, nor will it anathematize and condemn those who disagree with it. Its pages will be open for the free discussion of all beliefs not actually prejudicial to the public morals or the social order. In them all great questions of national interest can be discussed by eminent advocates of opposite views over their own signatures. The tenor and teachings of this paper will be emphatically American, for the following reasons:

A country without a precedent cannot follow in its policy worn or worr-out European paths. Neither agricultural Russia nor armed Germany, manufacturing France nor free-trade England can offer us precedents. Self-contained and beyond imitation, this republic will be selective of other national experiences and construct one of its own. It will be our purpose to make this paper, therefore, one which will emphasize and endeavor to expound purely American ideas.

We regret that our crowded columns can admit only a synopsis of this unique inaugural editorial. That the promise will be kept and the programme carried far beyond its outline goes without saying. The first number, bright and beautiful as it is, is but the forerunner of a perpetual succession of issues of equal or greater excellence. America can justly claim to have in "Frank Leslie's" the best illustrated newspaper of the world.

Our Southern Rival.

Pennsylvania Iron Industries and Their Competitors.

[For MANUFACTURERS' RECORD.]

From information I have gained of that section of country, embracing Virginia, Alabama and Tennessee, I am led to believe that supremacy in manufacture will soon be wrested from the Middle and New England States

The Southern people, as a whole, are generous, kind-hearted and hospitable, and the majority of them fairly progressive. There are those among them who think this life a dismal failure, and a few who still mourn the downfall of the lost cause. These people refuse to be comforted even by the music of progress, which has enchanted all others but themselves. But it is not necessary to go South to find that class of people, they flourish to a certain extent in every clime, and no section of country is entirely free from their presence and influence at the same time. I believe that the events of the last eight or ten years have convinced the majority of the Southern people that they are better off without slavery, I believe, also, that they are perfectly satisfied to let the matter rest on that basis, leaving out altogether the higher motives which actuated the abolitionists In their intercourse with each other, and with strangers, they are so much like people of other sections of the country that there does not appear to be any longer any good reason for referring to them as "the Southern People" Their manners, habits and customs are just about the same as you meet in any other part of the country, and with them sectionalism is dead.

The States named have much natural wealth, most of which is yet undeveloped; their rivers are large and provide cheap and convenient means of transportation, and their railway facilities are being increased and extended on every hand. A study of the climate of regions so rich in all the elements of wealth must be interesting. Heretofore, from some cause or other, most people when casting about for a home, thoughtlessly dropped all consideration of the South, being led to believe that it is a hot, dry, unhealthy region, and immediately struck out for the West or Northwest, and endured extreme cold in winter and extreme heat in summer; hurricanes and blizzards at any time and generally at a time when least prepared for them, and a soil and climate which are not nearly so attractive as those of which they so thoughtlessly abandoned. The climate of the valley and Southwest Virginia, Kentucky, Eastern Tennessee, Western Georgia and Northern Alabama, within which is embraced the Southern iron and coal belt, wh ch h s experienced such a wonderful boom since 1884, is milder than Pennsylvania. The summers are longer, and while it lasts the heat is more steady and uniform. They have, however, no such thing as hot waves, which occasionally pass over the North from Dakota to the Atlantic coast; and sunstroke in that region is unknown. The winters are considerably milder than we are accumtomed to, and the snow falls in smaller quantity than in the Northern region. I consider this section of the South more healthy than most parts of Pennsylvania, as it is not subjected to such sudden and violent changes in the atmosphere, and while the summers are long, the nights are always cool enough to get proper rest.

This wonderful region, the progress of which was retarded if not entirely hindered by slavery, must now take giant strides towards industrial wealth and greatness, since it is entirely rid of slavery and its consequent train of evils; and I look for a shifting of the iron manufacturing center from the New England States, and even from New York, Pennsylvania and Ohio, to the more favored States mentioned above. This may be taken as an extreme view. For such a thing as the South competing with Pennsylvania, for instance, the favorite abode of the iron and coal kings in the manufacture of iron, seems preposterous, but the whole tale is told in a very few words in the MANUFACTURERS' RECORD in the first week of April, when it stated that "Southern iron was sold in New York market this week at from 50 cents to $1 per ton less than the corresponding grades of Northern iron" This brief sentence sent a cold chill down the back of many Northern iron manufacturers, and the spirits of the Southern men have risen accordingly.

Just think of it. Ten years ago there was scarcely an iron mill of any consequence south of Maryland, and to-day the manufacturers of Birmingham, Ala., can ship their iron to New York, pay freight and still sell at one dollar a ton less than the iron made within one hundred miles of the market. The reasons for this are not hard to find. In the first place, the mills and furnaces of the South, all being new, are well fitted up with the latest improved machinery, while many of those in this section of country are old and are constantly being repaired These repairs cost both time and money Then again in Pennsylvania, and especially in Eastern Pennnsylvania, (where they have not the advantage of natural gas), the three principal materials for the manufacture of iron, which are iron ore, coal and limestone, a part of the iron ore has to be hauled hundreds of miles, while in many par's of the South the three are found within a radius of a comparatively few miles. These desirable locations for extensive works and the cheap manufacture of iron are not confined to one or two of the Southern States, but embrace Virginia, Tennessee, Kentucky, Georgia and Alabama. Among the most favorable locations for extensive works is on the James river, Va., at or near the crossing of Richmond & Allegheny and Shenandoah Valley Railroad, in the neighborhood of Balcony Falls and the Natural bridge.

The Richmond & Alleghany Railroad, which follows the James river from tidewater at Richmond to Clifton Forge, where it reaches the main line of the Chesapeake & Ohio Railroad at the eastern base of the Alleghany Mountain, making available the great belt of limonite, magnetic, specular and brown hematite iron ore and manganese ore east of Lynchburg, the different large veins of iron and manganese ores in the Blue Ridge and South Mountains, the celebrated ores of Richpatch and Warm Springs Mountain ranges. In short, this roadway cuts at right angles the principal ore seams that are stratified through the State. The ore in the immediate neighborhood of the site of where works should be located is in vast quantity, and can be mined as cheaply as anywhere in the State.

The Shenandoah Valley Railroad runs parallel with the South Mountain and Blue Ridge range from Roanoke to Hagerstown, thus making the large seams of ore in these ranges easy of access. First-class limestone is in great abundance immediately around the furnace sites. The best of coking coal can be reached at Pocahontas, Tazewell county Va., or near Quinnemont, W. Va., either of which can be delivered at a moderate cost; or when the line of railroad is made from Lexington through West Virginia to Pittsburgh, Pa., it will develop the best bituminous coal territory in the United States.

A part of Randolph, Upshur, Tucker and Preston counties, West Virginia, are underlaid with coal seams aggregating 70 feet in thickness. One of the seams is 22 feet in thickness, which is the largest bituminous coal seam developed in the United States or any other country This site on James river, Va., has railroad facilities for receiving supplies and shipping products north, east, south and west. It is in the midst of a good farming section of country, from which supplies can be got for extensive works The enterprise, being in control of energetic, persevering men, will not fail to be a success, and I will not be surprised if in a few years there is an iron plant at Glasgow or Glenwood that will compare favorably with that of the Cambria Iron Works in Pennsylvania. In speaking of the James river ores I failed to mention that large quantities of Bessemer ore have been developed. Several years ago the Cambria Co., of Johnstown, Pa., shipped largely of it from near Lynchburg to their works to use as a mixture with their Pennsylvania ores for making Bessemer iron. This location has the advantage of being nearly midway between Eastern and Western markets, and the freight on iron will be from $1 to $1.50 less than that shipped from the extreme southwestern part of Virginia, or from Georgia or Alabama.

J B. GIFFORD.

HOLLIDAYSBURG, PA., April 29, 1889.

[The force of this article will be better understood when it is known that Mr. Gifford is a practical Pennsylvania iron master of 27 years' experience. Some years ago upon the recommendation of Hon. Daniel J. Morrell, then the manager of the Cambria Iron Works, of Pennsylvania, Mr. Gifford went to Virginia to examine some iron lands not far from the Natural Bridge. For several years he had supervision of a furnace and iron property in Virginia, and made himself thoroughly familiar with the iron resources of that State. He is now living in Pennsylvania and his interests are there, but he sees and admits the inevitable drift of the iron trade. With these facts before them our readers can understand the force of Mr. Gifford's letter. It is the testimony of another Pennsylvania iron maker to the future supremacy of the South.—ED.]

Subscribe to the MANUFACTURERS' RECORD, *Price $4.00 a year or six months for $2.00.*

NEW BIRMINGHAM,

The Model Town of Texas,

AND THE COMING CITY OF A VAST CITYLESS AREA.

The Future Industrial Center of the Eastern Section of the Lone Star State,

In a Region Where Every Hill is Blanketed with Iron.

An Inviting Point for the Location of Manufacturers.

[Special correspondence MANUFACTURERS' RECORD.]

NATURAL BRIDGE, VA., May 4, 1889.

After many days of almost constant travel I have come here to rest and recreate, and a part of my recreation will be to tell the readers of the MANUFACTURERS' RECORD about the model town of Texas It is called New Birmingham, and is going to be the chief city of that now cityless region known as Eastern Texas. This town is owned by a strong, rich company, and has been started right. For instance, the erection of a perfect gem of a hotel was one of the first steps taken—a hotel very much like the celebrated Inn at Anniston, Alabama, which tempts the visitor to linger in the town. I had heard much of New Birmingham, and, of course, while in Texas went to see it. In fact, to have made the tour of Texas without visiting New Birmingham would have been as great a sin of omission, from an industrial standpoint, as to have visited Alabama and missed seeing that magic city of the Cis-Mississippi region, after which this New Birmingham was doubtless named.

It was on as fine an April morning as ever dawned that the writer, who was traveling through Texas with Mr. William H. Edmonds, one of the proprietors of the MANUFACTURERS' RECORD, arrived at Jacksonville, where the International & Great Northern Railway crosses the Cotton Belt Line, which latter runs thence to New Birmingham. And so balmy was the air and so refreshing was the sight of the green fields and the glorious foliage of fine forests in the vicinage, that we concluded not to wait for the train, but to engage a team of ponies and drive across the country to the now famous iron-blanketed hills of the Lone Star State. The fifteen miles were traversed in two hours, and a scene of activity, such as probably exists nowhere else in all the great Southwest, was witnessed at our journey's end. Hundreds of men were found grading streets, making brick and building houses. A new furnace was found far on the way to completion, while preliminary work on an immense rolling mill was rapidly progressing.

There are to-day at New Birmingham probably 25 brick storehouses, not only built but occupied by merchants who were evidently doing a prosperous business. A number of industrial enterprises are under way. A wagon factory has been been finished and is in operation. The business houses are not all strung together in a row, but have been built on half a dozen streets. The residences likewise are scattered over a considerable area. The effect is very pleasing, and impresses on the visitor the idea that this is to be a veritable city, and not a one-street country town.

The most charming thing about New Birmingham, however, is the configuration of the ground that forms its site. It is, moreover, laid out with a view to beauty as well as convenience, Mr. Nathan F. Barrett, who is said to be the most eminent landscape engineer in America, having been the author of the plan. He it was who laid out Pullman, Ills., and New Decatur, Ala. There are many pretty parks and boulevards. Fine shade trees are found on all the residential streets.

The presence here of boundless beds of superior iron ore is the basis of the city's future. It is destined to be to Texas, or at least East Texas, what its prototype is to Alabama. And right here a comparison suggests itself. Galveston is to Texas what Mobile used to be to Alabama. Alabama's iron city quickly outgrew her seaport town. And so this iron town of Texas may ere long outstrip Galveston, for the time has passed when commerce alone will maintain a city's supremacy in competition with rivals where industries abound. Iron industries bring railroads and railroads bring jobbing houses. The iron output of New Birmingham promises a railroad traffic greater than the tonnage of the entire cotton crop of Texas. It is in the center of the only iron district in Eastern Texas, a territory twice as large as the State of Pennsylvania, and the iron here is of extraordinary quality, as will be shown directly.

THE MEN WHO WILL MAKE IT.

I should, perhaps, have stated earlier in this letter who are the men who have charge of this new industrial town, and how much money is behind it, for everything depends upon men and money in this day of rapid city building. A new company has lately absorbed the old one and the name has been changed from the Cherokee to the "New Birmingham Iron & Land Co." The officers of the existing organization are: H. H. Wibert, of New York, president; R. L. Coleman, of New Birmingham, first vice-president and general manager; the other directors being Thos. G. Utley, John C. Hertle, Charles B. Wibert, all of New York; General W. H Hamman and A. B. Blivens, of Texas, and Henry T Kent, of St. Louis This new company will inaugurate a policy of progressive activity that will make itself felt, not in Texas only, but all over the South and West. With $3,000,000 and a property of incalculable resources, these gentlemen will not stop until New Birmingham is a city of fifty thousand inhabitants. Both this place and Denison will speedily forge to the front of the industrial procession, and it will prove intensely interesting to watch their progress It is hard to say which will get there first.

The capitalists who are pushing New Birmingham propose speedily to build a new railroad to connect with the International & Great Northern, and this will stimulate the "Cotton Belt" people to make connections that will bring the magnificent coking coal fields of the Indian Territory within easy reach of New Birmingham. However, so far as making iron is concerned, this point is independent of the coal carriers, for the timber on the properties of the company is sufficient to supply half a dozen furnaces with charcoal for many years.

It should be borne in mind that iron-making here will not be an experiment, for the penitentiary furnace at Rusk, which is within a mile of New Birmingham, is already turning out car-wheel iron of the very best quality—an iron that the car-wheel works at Marshall and Houston are taking in preference to any on the market. In fact, it is asserted that wheels made of this iron outlast by 33⅓ per cent. those made out of other brands. It is unquestionably a very superior iron. So far as concerns steam coal for the various industries that will congregate here, there is an abundance of it on the lands of the company right at the town. Not only will a number of furnaces ultimately be built here, but all kinds of plants that manufacture iron. Car works is one of the certainties of the near future; also stove works and a nail factory.

A DELIGHTFUL PLACE TO LIVE

There is no locality in the South or West, or for that matter anywhere within my knowlege, more attractive as a place to make one's home than this new Texas town. The climate is absolutely perfect. It is out of the belt frequented by the much dreaded "Northers," and the high elevation prevents the heat in summer that one would naturally expect in this latitude. Then, too, the site of the city is superbly beautiful. The ground dedicated to business consists of an inclined plane, which is flanked by gently rising hills covered with fine shade trees. Nowhere is there an undrained spot, either within the limits of the municipality or in the vicinity for miles and miles. The consequence is, it is a very healthy place, as statistics show. There is an abundance of pure water procurable in the adjacent hills.

Apropos of water, the existence of a mineral spring close to the town will make this industrial center likewise a health resort, for a company has been organized that will at once erect commodious hotels and bathhouses. An artificial lake for boating and fishing is likewise to be one of the accessories of this resort.

A street railroad is being built connecting the town of Rusk with New Birmingham. An electric-light plant is also under way. In fact, everything is being done to make this a model city. No one can go there without being impressed with the evidences of good management discernible on every hand. Nothing seems to be forgotten or neglected, and so systematic progress is being made all along the line.

The first lot was sold on the 12th of last November, and yet there is a population here of about 2,000 souls. During these five months the town has been getting ready. From now on it will grow at a glorious rate.

I know that analyses and columns of figures tend to disfigure an article; nevertheless, as investors desire accurate data, I will quote as follows from company's prospectus:

IRON ORE.

The great basis and reason for a prominent industrial town are the enormous iron ore deposits underlying about 14,000 acres of the lands of the company. The ore is pronounced by experts one of the best in quality and most extensive of any deposit known in the United States. It is classed as "blanket deposit," and varies from one to seven feet in thickness, and is found at an average depth of from two to three feet below the surface. The character of the ore is a "solid brown hematite," "a crumbly brown hematite" and "black laminated." These ores when roasted will be practically free from sulphur, and contain about 53 per cent. of metallic iron and will melt very readily in the furnace. The ores being found near the surface and in such quantity that it is only necessary to scrape off the sandy soil covering them, when the ore can be taken out at a cost not greater than 50 cents per ton. The quantity of the ore is beyond measurement, and is sufficient to supply any number of furnaces for hundreds of years.

ANALYSIS OF RAW ORE.

Made for John Birkinbine, June, 1889.

	A	B	C	D	E
Metallic Iron	46.55	45.65	45.17	40.63	48.31
Silica and Insoluble	17.53	17.67	20.36	23.84	16.00
Sulphur			.038	.02	.027
Phosphorus		.153	.069	.082	.315	.184
Water			13.09	15.25	15.76	13.71

When roasted metallic iron 52 to 53 per cent.

ANALYSIS OF "BROWN ORE" RAW.

Made by Missouri Furnace Company, St. Louis, May 10th, 1888.

Iron	44.40
Phosphorus	.027
Silica	18.41
Sulphur	.116

COST OF PIG IRON.

Basing the calculation on the cost of producing pig iron, from the *daily operations at the State furnace* at Rusk, *adjoining this property*, the cost of making charcoal pig iron at the *proposed furnace of the company* should not exceed the following:

2 tons of ore (roasted) at $1.00 per ton	$2.00
4-10ths ton of limestone at 1.50 " "	.60
100 bushels of charcoal at .06 per bushel	6.00
Salaries and labor	1.50
Interest and expenses	.50
Repairs, etc	.50
Cost of pig iron at furnace per ton	$11.10
Freight to St. Louis per ton	3.00
	$14.10

SURROUNDING COUNTRY.

The country adjacent thereto is a magnificent agricultural region producing cotton, corn and oats, etc. New Birmingham is in a populous center of the State, being forty miles south of Tyler, a city of 8,000 inhabitants, and which is now the largest commercial town of Eastern Texas. It is also within a mile and a-half of Rusk, with a population of 1,700 people, and fifteen miles of Jacksonville, with a population of 2,200 people. It is a mile distant from the State furnace, which has turned out iron of a superior quality and grade for the past four years.

BUILDING STONE, BRICK AND TIMBER.

In its immediate neighborhood and on the lands of the company, there is a large deposit of peculiar stone somewhat resembling the celebrated "Caen" stone used in Paris, France, which is very soft, and can be cut as readily as chalk when first quarried, but which hardens by exposure to the atmosphere. It is a magnificent and very cheap building material. The company has already established brick-yards upon its property and is now actively engaged in making bricks to be used for their blast furnace, hotel and other buildings which are about to be erected. The timber in this section is simply inexhaustible. It will provide material for building purposes, and for the manufacture of charcoal for iron furnaces for centuries to come, as it reproduces itself in about 18 years. There is also a deposit of cement stone, from which hydraulic cement has been made fully equal in strength to the best English Portland cement.

CHARCOAL.

The supply of charcoal is unlimited, and contracts can be made for delivery at the iron furnaces of the company in any quantity at from 5 to 6 cts. per bushel.

LIME.

The only deposit of pure limestone in Eastern Texas is on the property of this company. It is 200 acres in extent and is located conveniently to the railroads.

ANALYSIS OF LIMESTONE.

Silicious Matter	00.06
Carbonate of Lime	98.75
Sesqui Oxide of Iron	00.59

SPECIAL INDUSTRIES DESIRED.

The following industries can be profitably located at New Birmingham:

Pipe works.
Iron foundries.
Stove works, general castings, nail works.
Wire works.
Charcoal ovens and chemical works.
Rolling mills, iron bridge.
Structural iron works.
Clay pottery and brick works.
Cement works.
Cotton and woolen mills, cotton-seed oil mills and compress companies.
Car works, wagon factories.
Planing, sawing, sash and door mills.
Agricultural implement factories.

It is the intention of the Iron & Land Co. to foster and assist numerous sub-companies to develop the various industries centering in New Birmingham.

I have quoted more extensively from the company's circular than would have been admissible but for the very lively interest now being manifested in Texas resources. Moreover, the MANUFACTURERS' RECORD of May 4 contained full analyses and other accurate information concerning Llano ores and the coking coal adjacent to Denison. Besides, inasmuch as New Birmingham is the only absolutely new industrial town being built in Texas, its prominence warrants the fullest report of its resources.

THOMAS P. GRASTY.

THE Georgia Alliance has contracted with cotton mills for 2,000,000 yards of cotton bagging, to be delivered the 1st of August. The bagging is to be not less than thirty-seven inches wide, and to average twelve ounces to the yard, the manufacturers agreeing to take the cotton as covered at ten cents additional per hundred pounds, to cover the loss of weight in light covering. The bagging will be made by the Lane mills, New Orleans, and the West Point mills, Georgia. It looks as though the farmers of the South have gone into the fight with jute to win. The MANUFACTURERS' RECORD has always claimed that they would.

ADVERTISERS wishing to reach the manufacturers of all classes, mining companies, steel, iron and hardware dealers of the entire South, cannot find a better medium than the MANUFACTURERS' RECORD.

Two Highly Important Meetings.

The Southern manufacturers of cotton goods assembled in convention at Augusta, Ga., on Wednesday, May 1st. On the evening of that day the members of the newly-organized Spanish-American Commercial Union attended their first annual banquet in New York, and listened to addresses of an eminently practical kind. The proceedings of these two widely separated assemblages, convened for what would at first thought appear to be equally far-apart objects, were so nearly alike, in fact that a report of them may be easily and fittingly made in a single article.

The cotton manufacturers assembled at the call of President Hickman to consider the condition of their industry in the South; to discuss the advisability of a permanent organization, and also to decide whether cotton bagging could be substituted for that made of jute. Cotton manufacturers were present from Georgia, North and South Carolina, Tennessee, Alabama and Louisiana. President Hickman opened the meeting with an address, of which the following is a condensation:

"The question of building new mills should be freely discussed. We make a serious mistake to build mills and put them in operation without having the commercial capital to protect our interests. The result of this policy is that we ship our goods to agents for the purpose of raising money to keep our mills in motion. Once out of our control they are often forced upon the market and sold without reserve and without profit. A good agent is a good thing to have if you can control him, but if he controls you the danger line will soon be reached. Competition is too sharp to make money on such business principles. We have had some success in making brown cotton goods, but we are in danger of losing our advantage. We are making more than the country needs, hence the very low prices now. We are making the same mistake in manufacturing cotton that the planters make in growing it. All cotton and no corn is a bad policy. All brown goods without diversifying our interests is equally bad. We have large stocks on hand in this country, and on March 21 Shanghai was loaded down with 4,560 bales of drills and 27,000 bales of sheetings, with prices very low Convenient and cheap outlets for goods deserve careful consideration. We should control the markets of South America and Mexico, and to accomplish this desired end we should invoke government aid. Our flag should float over every bale of goods which leaves our ports. The British government, taking advantage of some supposed trouble between China and our government with the hope of prejudicing that country against our goods, has passed a law requiring every piece of goods manufactured in this country and passing through England to China to be branded "Manufactured in the United States of America." We would like to have our goods reach China without passing through England and without the use of English bottoms. Give us American ships; let China see the American flag. If our government would lend a helping hand in placing our products in foreign countries it would not be long before you would see "Manufactured in the United States of America" on the goods made in Manchester, England. One other important matter: We have invited our cotton growing friends and consumers of our goods to meet with us to discuss the great and absorbing question of manufacturing cotton bagging from cotton. I trust that you will in your wisdom be able to fall upon some plan that will give them substantial aid and comfort.

The convention adopted these suggestions and arranged for a permanent headquarters in Augusta, with a paid secretary whose duty it will be to obtain and compile statistics of every sort relating to the business. A resolution offered by Major J. F. Hanson, of Macon, was unanimously adopted, to memorialize Congress to grant subsidies to American steamships that should run between our ports and Central and South America. Before final adjournment it was decided to hold the annual meeting of the Southern Manufacturers' Association at Augusta next October. Besides the manufacturers in attendance at this convention there were present delegates from the Granges and Farmers' Alliances of South Carolina and Georgia, who had been invited to participate in the procedings, because that Southern manufacturers recognize the intimate relations necessarily existing between agriculture and their own industries.

The Spanish-American Commercial Union, after the banquet was finished, devoted several hours to listening to addresses from distinguished men on themes suggested by Mr. W. H F. Hughes, the toast master of the occasion. Among the more notable and practical speakers were Hon. Jno. W. Noble, Secretary of the Interior, Hon. Warner Miller, Hon. J. W. Foster and William Elerry Curtis, Esq., who was secretary of the American Commission that visited Central and South America and whose remarkably able report furnished the information which induced Congress to provide for the calling of the Three America's Congress that will be held next October. The address of Hon. Warner Miller in response to the theme "The Alantic and Pacific" was a strong presentation of the advantages America would obtain by the construction of the Nicaraugua canal, which he believed would open a new era to the commerce of the world, in which the countries of the American continent would be the chief gainers. Mr. Curtis's speech contained a comparison of statistics of the manufactured products of this country and of England which were sold to foreign countries. The sum total the United States furnished the outside world last year was but $130,000,000, while of the same class of goods, in 1887, England exported $765,000,000, of which $365,000 000 were cotton fabrics. "And a great part of this (British) export went to South America, to markets that by all natural laws should be our own, and would be had we cultivated them as England has done." * * "The cry of 'subsidy' has frightened Congress But, Mr. Chairman, the United States is one of the most liberal nations on earth in giving subsidies. I intend no sarcasm. A subsidy, as we understand it, is pecuniary assistance to facilitate commerce, and our Congress offers it to most everything but ships. We subsidize the sheep of Ohio, the sugar-cane of the South, the iron of Pennsylvania and the lumber of Michigan. Every railroad is subsidized, every stage-coach, and every steamboat that plys our inland waters or skirts our coast

Every town in which a postoffice is established or a government building erected, is subsidized at the expense of the tax-payers for the convenience of commerce, but when it comes to ocean mails the practice stops. Every commercial nation but our own assists its ocean steamers, and the experience of ages has taught that it is the only way to establish lines of foreign trade.

Why, Mr. Chairman, America was discovered from the deck of a subsidized ship. [Laughter and applause] A woman left her jewels with a banker at Seville to secure its payment, and a clerk in the counting-room of that banker, perhaps the very one who counted out the gold, afterward gave his name to this hemisphere. England secured her commercial supremacy by subsidy. Nor has she given her service to the lowest bidder, but to the best, and in long contracts, so that the ship owners might know what to depend upon in the future. Some years ago an attempt was made by a rival line to get the mails away from the Cunarders by underbidding. But that British Postmaster-General whose eyes were sightless, but who saw with his mind much that other men overlooked, said 'No.' The Cunarders had done the service satisfactorily for half a century, he said, and had built a fleet of staunch and swift ships with the expectation of a continuance, and they should keep the contract. The same policy was pursued in reference to the Royal Mail Co., whose vessels carry the mails of England to the West Indies and South American ports. The attempt of a rival company to underbid them was rebuked.

But we don't do things that way in the United States."

Mr. Curtis then gave many statistics from the government records showing the liberal sums for postal service paid within the country, and the ridicuously small sums allowed for the ocean mails. Of these the following are pertinent examples:

"Is there any greater wrong in affording the merchants of New York facilities for transportation to the South American ports than in furnishing the same to the merchants of Evansville, Ind., or the planters of the Chattahoochie, or the market gardeners along the Chesapeake, or the summer visitors of Buzzard's Bay and Bar Harbor? Let me cite a few illustrations. During the last year the Postoffice Department paid $44 500 for the transportation of mails on the rivers of Arkansas, and only $13 715 for the transportation of mails to Japan, $54,701 on the rivers of Washington Territory and only $42,593 to all the Asiatic and Australian ports We paid $79 637 for carrying the mails on the rivers of Florida, but only $47 997 for sending them to all Central and South America and to the entire West Indies, with the exception of Havana. We paid $20,879 on the Ohio river between Paducah and Louisville, $101,566 to subsidize stage coaches in Nevada, $239,568 in Washington Territory, $163,893 in Idaho, and $417,000 in Colorado, and but $86,890 to encourage American steamers all over the world.

After much more of these telling comparisons, Mr. Curtis said:

"We must make less, or sell more. The first alternative is impossible; the second imperative. Neither capital nor labor would permit anything else, and so we stand upon the threshold of a new century of national life with a problem as serious as that of slavery, which vexed the nation thirty years ago. And yet the solution is simple enough, and I think is understood by those upon whom the responsibility rests. I can say for the President that he knows where the trouble lies, and has the courage to correct it so far as his authority and influence can reach. It is violating no confidence to say that the expansion of American commerce on longitudinal lines is to be the feature of his administration, and Mr. Blaine and Mr. Wanamaker are entirely and heartily in sympathy with him I think, too, that in the next House of Representatives will be found the same spirit of enterprise and justice that exists in the Senate, but everybody here who knows a Congressman should make it a business to educate him"

Many letters of regret were received from eminent citizens, including President Harrison, and from Ministers Romero and Hortado. All expressed earnest sympathy with the purpose of the association One of these communications was from Hon Thos. J. Jarvis, of North Carolina, who for the last four years has been the representative of the United States at the Brazilian Court. This letter is too long for this week's issue, and will appear in our next. It is filled with valuable information and suggestions.

It will be seen from this cursory report of the two meetings that the manufacturers of the South and the merchants of the North stand upon the same broad plane New markets must be opened for American products. The roads to them are the oceans and the Gulf of Mexico, and when the Nicaraugua canal shall be finished, we shall have a short cut from our Eastern ports to the Orient. The paths across these broad waters belong to the world, and all Europe is using them more and more. Europe has the ships, for her governments dare to assist in supporting their merchant marine. We must do the same if we would have our share of the world's commerce. To this conclusion the people all over the land are fast coming, and such meetings as the two we have noticed will strengthen Congressional backbones until the scarecrow cry of subsidy will lose its terrors and their votes will emphasize the popular will.

The Prosperity of Salisbury, N. C.

SALISBURY, N. C., May 4, 1889.

Editor Manufacturers' Record:

Salisbury has for some years past been growing more rapidly than any other town in the Piedmont section of North Carolina. Its rapid development is due to its railroad and banking facilities, its excellent schools and churches, its very low taxes, its remarkable healthfulness, and to its being surrounded by a country in which there are four staple productions, grain, tobacco, cotton and hay.

The community has two leading characteristics: 1st. It demands solid growth and thorough work in everything, and is intolerant of anything that is not as good as it seems. 2d. It is a self-reliant people; others may help them if they will, but what Salisbury folks undertake to do they will certainly accomplish. So the workman's hammer is heard in every direction, dwellings and factories are springing up, an annual increase of from 10 to 15 per cent. in the population is maintained, and not a few town lots are worth three times what they were three years ago.

Its situation at the junction of the two great trunk lines of the Richmond & Danville System gives it direct lines of road to the North, the South, and the Southwest, and makes it a fine location for factories, while cheap labor and cheap living are additional attractions.

Just now business men of Salisbury are contemplating getting up a wool factory, a shuttle and bobbin factory, and a shoe factory. Parties who have practical experience in any of these lines of manufacture, and who propose investing in them, would meet with substantial encouragement if they came to Salisbury to locate now. I say now, for in a few months home capital will be provided to supply these wants, there being a fixed determination here to have whatever is needed. Persons desiring further information may address the president of the Chamber of Commerce. VIDI.

THE MANUFACTURERS' RECORD is the South's great industrial exponent—"the most widely-quoted industrial paper in the world." No business man interested in the south can afford to do without it (price $4 a year). Subscribe now.

SHELBY, ALA.

A Mammoth Company Organized.

Extraordinary Eagerness for Information Concerning the Progress of this Promising New England Enterprise in Alabama.

A Brand New Furnace Being Built.

Getting Ready For The Opening.

[Special correspondence MANUFACTURERS' RECORD.]

SHELBY, ALA., April 30, 1889.

On our way back from Texas your Mr. Edmonds and I stopped at Shelby, which is soon to be the center of an industrial activity that will surprise the most extravagant believer in Southern material development. The Shelby enterprise is based on such solid foundations that even Anniston men are eager for news concerning its progress, the mainspring of their eagerness being a desire to get in "on the ground floor" in buying town lots in the future city. This anxiety, however, is not confined to Anniston nor to any other one point, for scarce a day has passed since the Shelby letters of your Mr. William H. Edmonds and of the undersigned were published without our being called upon for "inside" information concerning the materialization of Mr. Ward Jacob's and Col. Stoughton's brilliant scheme. Until now we have been unable to say more than has been said in the announcement made in the MANUFACTURERS' RECORD six weeks ago.

At the annual meeting of the directors of the Shelby Co. last week plans were matured which will result ultimately in the employment of many millions of dollars to develop Southern resources.

In the letters written from this point for the MANUFACTURERS' RECORD six weeks ago a plan of procedure was outlined. I learn from Colonel Stoughton that the board of directors not only ratified this plan, but guaranteed that it should be carried out on a scale of even greater magnificence than was there indicated. In other words, it was arranged to organize a new company with a large cash capital, half a million of which is to be dedicated to improvements and encouraging the location here of large industrial establishments.

A number of large brick storehouses are to be built by the company in the new town. They are not going to wait for outsiders to come in and start the work of town-making. In this they are wise, but many a new town has been ruined by "shanty" buildings. There will be no shanties built in this new town, but substantial structures that will carry confidence with no uncertain sound.

The name of the new company will be "The Shelby City Company," and the stock will be taken—in fact, has probably already all been taken—in Connecticut, and I feel like predicting that it will soon be one of the most valuable stocks in all this section, for I have studied the basis of this new town and know something of the great future that is before it.

In connection with this I am moved to have put in print a statement that Col. Stoughton made this morning to Mr. Edmonds and the writer as we were inspecting the castings for the new furnace.

Said Col. Stoughton: "Do you know that many people think such letters as you two gentlemen wrote in March about Shelby are mere paid for 'puffs?' And yet they often think enough of such 'puffs' to come and see for themselves. Well, your letters, which I have indisputable proof were read all over the North, led a dozen or more of very cautious investors to come down here on a trip of investigation, and every one of them said that their investigation fully verified your letters."

"You ought to be proud of this," he added, "for most newspaper accounts result in disappointment to men who are influenced to investigate in person by reason of such publications."

And right here I will digress to say that no sort of persuasion nor promise of pecuniary reward has ever succeeded in causing the slightest misrepresentation favorable to the localities which I have described almost weekly during the past few months in the MANUFACTURERS' RECORD. I could mention one case where as much as $5,000 was offered to "boom" a wild cat property, but it was refused.

But to return to Shelby. Col. Stoughton told us that he had received a great pile of letters about the opening of the new industrial town (the first announcement of which was in the MANUFACTURERS' RECORD), and that many of his correspondents had asked if there was any danger of yellow fever there. In answer to this I will say that Shelby is at the foot of the Blue Ridge Mountains, in a region that not even malaria, much less Yellow Jack, was ever known to visit. In fact, Shelby is as safe from yellow fever as is Hartford or New Haven.

The new furnace now in course of erection and other interesting industrial developments I will postpone until my next letter.

In conclusion I will say what perhaps ought to have been said at the outset, viz: the town will be opened and lots placed on the market within about six weeks, perhaps sooner. The death of a son of the engineer who was laying off the ground and preparing the plot of the future city, called him back to New England, and has thus delayed matters some. The Shelby people never do anything prematurely. And so the plot of the city site must be made and lithographed—and by-the-bye, the literature of the Shelby City Co. will be exquisite—before the lots are put on the market. It is safe, however, to predict that the grand opening, which will be duly advertised in the MANUFACTURERS' RECORD, will occur within the next six weeks.

THOMAS P GRASTY.

A GOOD OPENING FOR CANNING AND EVAPORATING FACTORY — MORRISTOWN, TENN., May 4, 1889—We desire, through the columns of your paper, to call the attention of persons conversant with the business of drying and canning fruit to the fact that a remarkably fine opening exists here for the successful prosecution of such a business. From the farmers in the surrounding country we learn that the orchards are laden with an unprecedented crop of fruit. There is no establishment here for handling fruits or vegetables. We think such an establishment would prove very profitable.

MONTVUE LAND CO.

TO OPEN NEW COAL MINES AND BUILD COKE OVENS—BIRMINGHAM, ALA., May 3, 1889.—We propose to open during the coming summer two new mines on Drinking Branch, one mile from Coalburg; another mine at the Fish Trap tunnel on the Georgia Pacific Railroad, 6 miles west of Coalburg, and another on the Field's prong of Prude's creek. The output of these mines is expected to reach 1,500 tons in the next 12 months. We also propose to build 125 beehive ovens at the last mentioned mine.

SLOSS IRON & STEEL CO.

COTTON OIL MILL TO BE BUILT—FLORENCE, S. C., May 2, 1889.—The subscriptions to the Florence Cotton Oil Co. have been secured and charter applied for.

S. A. GREGG.

LOUISVILLE.

A Year's Operations—Increase in Business—Coke Making.

BRANCH OFFICE MANUFACTURERS' RECORD,
LOUISVILLE, KY., May 6, 1889.

The committee on mercantile and manufacturing interests of the Commercial Club have completed a report of the year's operations of the committee, which contains some very valuable information concerning the growth of those interests during the year, and discusses matters of importance connected with future industrial development. The report opens with the statement that during the past twelve months there were 104 new manufacturing enterprises and 568 new mercantile establishments opened in the city. These establishments in themselves would be the nucleus for a most important manufacturing and business center, and when it is taken into consideration that several of these new enterprises are industries employing from 50 to 400 hundred men each, the extent of the progress here in 1888-9 may be imagined. The committee adds:

"There are no means of ascertaining the amount or value of additions and extensions of corporations heretofore in operation, but, from specific instances within the knowledge of this committee, it is certain that they are very great and have added largely to the wealth of our commerce. Prominent among industries thus increased is that of one concern in the iron trade, which was begun in 1882 with $6,000 capital and is now a property representing $75,000.

The cotton mill, whose incorporation was mentioned in the last report of this committee, have their goods on the market and report orders already to a large percentage of their capacity. This company is the most important enterprise, in its influence on the future of our city, that has been started. It is the beginning of cotton manufacture and will demonstrate that Louisville is the most suitable location for this industry in the United States. Nowhere else do the areas producing raw material focus as at Louisville, thereby creating an unsurpassed competion and low prices. We are equally accessible from seven distinct coal fields and from the entire cotton belt. This means competition in prices, and therefore Louisville has the cheapest coal and cotton. Over the South we have the advantage of cheap fuel and of being free from the failure a cotton crop in any local section. Our climate is incomparably finer and more exhilirating, and within a radius of 300 miles we find a market for more cotton goods than are produced in the whole South.

Compared with Fall River, Mass., we have steam coal at 75 cents per ton where they pay $3.50. Cotton can be delivered on warehouse tracks here at one cent per pound cheaper than there; daylight working hours are longer, and in many other points we possess great advantages. The capital stock in Fall river invested in cotton mills is $18,000,000, and the saving on cotton and coal alone between this point and that would make 5 per cent. on the entire capital invested.

Louisville has now almost ready for operation a bobbin and shuttle factory. Millions of these articles are used annually in the South and West. They have been manufactured in New England from wood brought from Kentucky and Tennessee. Obviously the freight alone on such bulky articles will pay the stockholders of this corporation handsomely. In Kentucky, and convenient to this city, is found the peculiar growth of ash that is used for hoe, rake and shovel handles. This wood is now shipped to the East and returned in manufactured shape. It requires no argument to show that with our cheap iron and new steel process these goods could with great profit be made here.

Although Louisville has long been the headquarters of jeans manufacture, yet the capacity of these factories has been increased over 300 looms during the year. The class of woolen manufacture is being extended by the building of a new mill for the production of worsted goods. The importance of this move cannot be over estimated, as it suggests our opportunity of being the manufacturers of blankets and finer grades of woolen goods. No reason can be given to show that all clases of woolens could not be produced here with great profit. Once begun, a few years will witness Louisville leading in this line as she now does in many branches.

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In the iron trade there is melted about 150,000 tons annually, and it is increasing. The latitude for extension and development of this trade offers a most desirable field for investors who will go in for themselves or furnish capital to qualified young men. In a letter from the head of our largest iron melting establishment is the following: 'It is my opinion that this city has advantages unsurpassed for the manufacture of any article that has iron for its principal and greatest cost; that is, goods or articles can be successfully and profitable made here that will require very largely iron as its crude and principal basis of cost. Pig iron here is now, and will likely continue to be, cheaper than in any other section of the country that is proportionately the same distance from the iron furnaces, and is cheaper at no other point comparatively situated from the iron furnaces and centers where the crude iron is made. The nearer approach to the furnaces by a manufacturer would decrease his other general facilities and opportunities in about the same proportion that he would go nearer the place of making the iron. Taking a general survey of the country, and particularly comparing this city with other places in the United States, there are none, in my opinion, that equal Louisville in cheapness of pig iron, transportation facilites and a healthful, cheap home for operatives. These three requisities to a successful manufacturing business being permanent, local and liable to improve, outweigh glittering offers by other cities and locations where bonuses of free fuel, free land, etc., are freely offered, which facts in themselves show that lasting and permanent advantages are lacking in such places, and that these profuse and seemingly liberal offers must exhaust themselves in using, and the acceptors find themselves in a short time in a location not desirable for permanent success or profit, and having for its only merit the bonus to move or locate for the free gift. Manufacturing to be of any profit or credit to a city or location must not only be permanent but must be established and conducted at a point where its operations are not only profitably and necessarily successful, but where also its future is guaranteed, and its increase assured on the permanent basis that it is the best located, and has other lasting facilities and assurances that by comparison with the country at large make it equal to any for the business in hand, or at least comparatively on almost equal competing grounds with any other place in the country. Such a place is Louisville to-day for the manufacture of any articles, large or small, requiring large quantities of crude or manufactured iron in its making.

Could this committee find a better argument or make any more certain guarantee than this statement from one who has successfully demonstrated the truth of his words. There is urgent need for more foundries for custom work, machine shops for repairing and building automatic and Corliss engines, wood and iron-working ma

chinery, cheap buggies, pumps, cutlery, wind-mills, traction engines, cheap boilers and farming machinery, all of which are bought North and East of here. Yet iron, coke and coal are so cheap that Louisville fil's building contracts in Chicago, St. Louis and Cincinnati, sends furniture, stoves, mantles and grates from Maine to California, ships axes to Boston and Oregon, and strange as it may seem to the uninitiated, sells cast iron pipe to Pittsburg."

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The importance of the building operations in Louisville this season is unprecedented, and the business portion of the city will be almost transformed within the next twelve months. The Public Warehouse Co., which already owns one of the largest and most costly buildings in the country, capable of storing nearly half a million barrels of whisky, has purchased 160x208 feet on Main street, and will immediately erect a warehouse covering the whole property, and seven stories in height. The building will be handsome in design. The Kentucky National Bank has determined to erect a magnificent seven-story office building opposite the board of trade, and will use the first floor for bank quarters. It will be one of the handsomest structures in the city, and work will be commenced as soon as the formalities connected with the purchase of the ground have been complied with. Within thirty days there will be in process of construction five immense buildings in the central part of the city which will cost in the aggregate about $1,050,000, an average of more than $200,000 each. In addition to these there is an unusual number of manufactories, storehouses and residences under contract, and the season's operation will far exceed those of any previous year. The city is just opening the handsome new boulevard, five miles in length, which is a continuation of Third street, the most fashionable residence street of the city, to the new South Park, and the work will be completed during the summer. It will be handsomely ornamented, and during the driving season will be lighted with gas until midnight every night.

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The natural gas excitement several weeks ago has resulted in a very substantial advance of the gas interests. The impulse that was given to organization, and the amount of new capital invested, has resulted in contracts being let for the boring of about 130 new wells. A number of these have already been sunk with the most satisfactory results, and the remainder will be bored as rapidly as possible. The supply in sight in the gas field at present is estimated at about 40,000,000 feet, and this will be more than doubled within six months, giving Louisville practically a sufficient supply to supplant all the coal ordinarily used in manufacturing enterprises, and a great deal that is used for family purposes. A well was recently sunk about ten miles from the city and gas was secured, although at a depth considered too shallow for more than temporary purposes.

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The results in the experiments made at the Pineville coke ovens have caused the organization of a very strong coke company under the management of Mr. J. H. Allen, formerly connected with the Pocahontas company. He has leased considerable territory and has already made contracts for the building of 200 coke ovens, the product of which he can sell in advance without any trouble. So successful have these experiments been that the Monarch Coal & Coke Co. has been organized with a territory of 10,000 acres adjoining the Pineville property. The coal road will be extended during the present year into this territory, and agreements have already been entered into by which some fifty ovens will be built with prospects of a large number additional. The Middlesborough Town Co. have just let the contract for the building of a canal which will straighten Clear creek at a very heavy expense. The canal will be completed at once, and a large force of men was put to work on it this week.

YOUNG E. ALLISON.

RALEIGH, N. C.

A Rising Southern Industrial Center.

[Special correspondence MANUFACTURERS' RECORD.]

RALEIGH, N. C, May 4, 1889

This, the capital city of the Old North State, is one of the healthiest and best situated towns to be found in the entire South. For years, however, like most Southern cities, it grew only by slow degrees and was not marked by any special display of an enterprising spirit. But its people have at length caught the contagion of progress, and it now bids fair to become an industrial center of no small prominence. Its sanitary advantages were demonstrated more than a quarter of a century ago, when a commission of the Confederate government reported in its favor over all other Southern localities that were examined on the score of healthfulness

Lying upon high ground its natural drainage is excellent and its water is of the best quality. The city is beautifully laid out, its streets being from 66 to 100 feet in width, and upon either side magnificent shade trees rise.

A few facts relating to the manufactures of Raleigh will prove of interest, as showing what has already been accomplished in the development of its industrial possibilities Major R S Tucker, the president of the Raleigh Chamber of Commerce and Industry, began business in Raleigh in 1818. The house continued until 1868 under the name of the founder, but Mr T. McGee was then admitted to a partnership

In 1883 Major Tucker sold his interest to young men whom he had trained in the business and the firm name was continued. Mr. Tucker has been for twenty years connected with the Institution for the Deaf, Dumb and Blind, and for several years president of its board of trustees. He is also a director in the Peace Institute and is prominently connected with the railroad and banking interests of the State, as well as aiding all enterprises tending to advance the prosperity of the city and commonwealth.

Julius Lewis & Co, dealers in hardware, are among the first and foremost in advancing the interests of Raleigh. They have built a large number of residences in the city, and there is hardly an enterprise inaugurated with which they are not connected. Mr. Lewis is president of the North Carolina Car Co., which has a capital stock of $50,000 This company was incorporated in 1882 and has since that time been carrying on an active business in the manufacture of passenger, freight and street cars, and have also large orders for portable houses for shipment to Martha's Vineyard and other summer resorts. They have large buildings with all the latest improved machinery, and are now putting up an extensive addition, where they will manufacture sash, doors and blinds. Cars run directly through their main building, and in all respects they have the greatest advantages for turning out work cheaply and well. Mr. John Ward is secretary and treasurer of the company, and the mechanical and general business is looked after by Wm. E Ashley, superintendent.

The North Carolina Wagon Co. has as its President Mr. N. W. West, the "company" in the firm of Julius Lewis & Co., and among the new industries of Raleigh it is one which is destined to play an important part in the prosperity of the city. Realizing the inexhaustible supply of lumber necessary for the construction of wagons which North Carolina contained, and its cheapness compared with the supply in the North, the company inaugurated these works for the purpose of supplying the Southern trade from their own materials at a price far less than could be afforded by other manufacturers, and at the same time retaining the money expended for material, labor, etc, at home. The company purchased a block of ground on the Richmond & Danville Railroad, and are now erecting a substantial brick structure, 50x150 feet in size, with blacksmith shop 25x60 feet; also, boiler and engine rooms, two storage rooms, etc. They also intend erecting dwellings for their laborers. A fine spring upon their premises supplies the necessary water. The plant will cost when completed about $50,000 The company say, though they have commenced this enterprise, they do not wish to keep the business exclusively to themselves, but all are welcome to come; material for this class of work can be purchased at twenty five per cent less than at the North, and the supply will equal any possible demand.

Messrs. Allen & Cram have a large general foundry and machine shop, having established themselves in business in Raleigh in 1877 They purchased their present stand in 1882, and have greatly enlarged and improved their works. They pay especial attention to repairs of machinery, doing nearly all the work for mills within a radius of 100 miles. They manufacture engines, boilers, shafting, etc., and their work has a reputation second to none in the South.

The Wetmore Shoe & Leather Co. is another of Raleigh's manufacturing enterprises which has recently attracted attention by forming a company with a capital of $25,000 and privilege of $100,000, and making a contract for the convicts of the penitentiary for ten years They make principally pegged work and hand-sewed Acme welt shoes. Their capacity now is about 300 pair per diem, but with an expected increase to 1,500 pair. They expect to deal exclusively with jobbers and send out nothing but warranted goods; the uppers used are from the best chestnut oak tanned leather, and the high reputation already obtained for their goods will be sustained.

A furniture factory is one of the special industries of Raleigh, which is bound to come to the front and become one of the best paying concerns in that city. In 1874 Ruffin Roles located in the city and was the first to manufacture sash, doors and blinds in this section. In connection with this and building, he started furniture manufactory, and now devotes his whole attention to that. For more than 30 years Mr. Roles has been in this business, and is a thorough, practical workman in all its departments. He has invested a large amount of money in the plant and has the best machinery to be procured. The facilities for cheap lumber, which he enjoys, and the fact that all is done under his own supervision, enables him to put his prices lower than any factory of the North can afford to compete with, and he has therefore almost the whole South for a field in which to dispose of his goods.

The North Carolina Phosphate Works, with Mr Collin M. Hawkins as president, is one of the important industries of this State as well as of this city. They manufacture several grades of fertilizers, the united output of the mill here and at the phosphate quarry near Wilmington being about 16,000 tons per annum. Mr. Hawkins is also president of the gas company and the electric light company, which are now operated in connection, and which furnish the citizens of Raleigh with light at a lower average price than most other cities receive. The gas company were the first to import and use a gas engine of as high a power as 50-horse, and they now have one of 60. With these engines they operate the dynamos for the generation of electricity for their lights. They have a fine plant and Raleigh may congratulate itself upon having such a company in control of its illuminating facilities.

The Raleigh Oil & Fertilizer Co., manufacturers of cotton seed oil and fertilizer, with Mr. W. G. Upchurch as president, uses 60 tons of cotton seed daily during its season, which will average nearly forty gallons of oil to the ton. They also manufacture from the meal, etc., 4,000 tons of fertilizer per annum Mr. Upchurch, however, does not give his entire time to the mill, but leaves it under charge of F. G. Kinney, the superintendent.

Other factories are the large one of Ellington, Royster & Co., builders and contractors; that belonging to the Briggs' estate; ice factory of Leach & Andrews; vinegar factory which recently commenced operations, and many others of smaller dimensions of which space forbids a detailed mention. Stock has recently been subscribed for a large cotton mill, and it will probably be carried to a successful issue.

The city will soon vote upon a proposition to appropriate $100,000 for the improvement of the streets and the commencement of a sewerage system. This will undoubtedly be carried, and will be of inestimable advantage. Manufacturers looking for a location for almost any class of work, will find in Raleigh an advantageous location

JOHN P. COFFIN.

THE chemical bureau of the Department of Agriculture has recently completed analyses of butter from the milk of cows fed on cotton-seed meal. Some interesting and unlooked for results were obtained that will be of great advantage to the dairymen of the cotton States. It is ascertained that when cotton-seed meal is mixed with other cow feed the butter will stand more heat before melting than that containing the standard quantity of volatile acids. This is important for two reasons: First, that such butter might be condemned as adulterated by the chemists employed by boards of health or of food inspection in our larger cities, because of the greater quantity of volatile acids; second, because this higher melting point will make cotton-seed meal butter, when made in the best manner known to modern dairymen, the gilt-edged butter of commerce, either for domestic consumption or for shipment to the West Indies and other warm countries. We hope the agricultural chemists of the various Southern States will take up this line of experiments and give the results to their people. With the splendid herbage, the pure water, the mild short winters of the South, supplemented by the abundance and cheapness of this comparatively new food, butter-making should be one of the South's great industries and an important contributor to its increasing wealth. The gratitude of Southern farmers should be manifested to the Department of Agriculture for this timely and important information.

CONTRACTED TO BUILD RAILROAD—NEW YORK, May 2, 1889.—We have the contract for construction of the Decatur, Chesapeake & New Orleans Railway from Decatur, Ala., to Gallatin, Tenn. Work will begin on Monday next at Fayetteville.

BELDEN & MCTIGHE.

WILMINGTON, North Carolina.

This Pleasant and Growing City Invites Enterprising Citizens and Capitalists from all parts of the Civilized World.

$150,000 Freedom from Municipal Taxation. $150,000

Splendid Opening for Men of Push and Energy.

The City of Wilmington has made an appropriation of

$150,000

For the Purpose of Encouraging Manufacturing.

ADVANTAGES OFFERED.

CLIMATE

FAVORS WORK THE ENTIRE YEAR.

LABOR

ABUNDANT AND CHEAP; Living Economical.

FREIGHT RATES

ARE LOW BY RAIL TO INTERIOR POINTS.

SHIPPING RATES

By steamships and vessels low to all parts of the world.

No Better Point for Profitable Investment.

WE HAVE THE RAW MATERIAL IN ABUNDANCE.

FACTS ABOUT WILMINGTON.

A Seaport City of 25,000 population. An Important Naval Store, Cotton and Lumber Market.

Extensive Shipping Interests. A Secure, Fresh-Water Harbor. Depth of water on bar 18 feet at mean high water; under Government supervision, being continually deepened.

Excellent Terminal Facilities. Four Railroads in Operation, two in process of construction.

Surrounded by Attractive Summer Resorts. Adjacent territory especially adapted to Trucking, Peach Growing, Vineyards, and Rice Culture. Drainage excellent

Health and Climate Unsurpassed.

An All-the-Year-Round Resort,

"THE LONG BRANCH OF THE SOUTH."

EXCELLENT SCHOOLS AND CHURCHES OF ALL DENOMINATIONS.

A CORDIAL WELCOME EXTENDED TO ALL GOOD CITIZENS AND MEN OF PUSH AND INTELLIGENCE.

THREE BANKS, with ample Banking Facilities.

AMONG THE MANUFACTURING ENTERPRISES NOW IN OPERATION ARE NUMBERED:

Cotton, Pine Fibre, Fertilizer, Wood Working and Ice Factories; Rice, Flour and Planing Mills; Foundry, Machine Shops, Gas, Electric Light Plants, Cotton Compresses, Creosoted Lumber, Car and Water Works.

We invite all to COME and SEE, and on the spot to judge for themselves. Wilmington offers excellent Hotel accommodations, and a committee of its Chamber of Industry will extend to strangers seeking Home and Investment cordial greeting and attention.

Persons who may desire fuller information can obtain it by addressing

THE CHAMBER OF INDUSTRY, Wilmington, N. C.

The Rockbridge Company,

AUTHORIZED CAPITAL $5,000,000.

GLASGOW, VA.

PRESENT POSTOFFICE ADDRESS OF COMPANY, LEXINGTON, VA.

A New Industrial Center in the Old Dominion.

This company is formed under a liberal charter for the purpose of owning and developing selected properties of great value which are now controlled in the interest of the company. These properties embrace 95,000 acres, comprising some of the most valuable mineral tracts in the country, and a body of 4,000 acres beautifully located just above the confluence of the James and North rivers, near Balcony Falls, and four miles from the famous Natural Bridge in Rockbridge County, Va., which seems to have been designed by nature as a site for a large town. Here it is proposed to combine the great resources of the company's properties in building up a manufacturing town to be known as Glasgow.

At Glasgow it is expected that the company will erect two or more coke iron blast furnaces and a plant for the manufacture of ferro manganese, perhaps the most lucrative of all manufacturing industries connected with the product of the metals.

Glasgow is triangulated by railways—the Richmond & Alleghany of the C. & O. system, the Shenandoah Valley and the Lexington Branch of the R. & A. Railroad—which connect it with the Pocahontas, New River and Connellsville coal fields, and with the best markets of the country.

RESOURCES OF THE PROPERTIES.

1—IRON ORES of ascertained excellence in inexhaustible quantities and of five distinct varieties, which can be cheaply mined and delivered at the furnaces at a low cost.

2—LIMESTONE in the immediate vicinity of the iron veins.

3—MANGANESE only partially developed, but as there are over 30 miles of the strike of the manganese ores upon the properties referred to, the work already done gives assurance of large supplies of this valuable mineral.

4—TIMBER.—Thousands of acres of virgin forests, much of it containing valuable woods for lumber, and all valuable for fuel.

5—WATER POWER.—The entire power of the James and North rivers already developed by three or four dams.

6—Several thousand acres of valuable arable land, which can be largely increased by reducing wood land to cultivation.

7—Hydraulic Cement, Fire Clay, Kaolin, Mineral Paint, Superior Building Stone.

8—Several thousand acres of the most valuable coking coal lands in the country, affording an ideal furnace fuel.

It is no longer a problem that iron can be made in Virginia at a larger certain profit than anywhere else in the country, and the properties and the town site selected afford the most favorable conditions that exist in Virginia for its profitable manufacture. The company claims that even at present low prices it can make iron at a profit of from $2.50 to $3.00 per ton for the entire output of the furnaces, and that this profit is more likely to be increased than diminished. This gives as the annual profit from the furnaces alone, if there be two stacks, at least $175,000; if there be three stacks, $262,500, or from 10 to 13 per cent. upon the entire capital stock of the company now proposed to be sold, whether it be in the one case $1,500,000 or the other $2,000,000. This, without taking any account of the income which may be reasonably expected from the manganese and other valuable minerals on the properties, from the sale of timber and bark, or of the profits to be realized from *the town or land and improvement feature of the enterprise.*

The company will own 4,000 to 5,000 acres available for town and residential purposes and for manufacturing sites. It offers the subscribers to its present issue of privileged stock the right to take one lot for every two shares subscribed for at the nominal price of $10 per lot. It will probably set apart 1,000 acres to be given to companies and men of enterprise who will come and establish manufacturing plants at Glasgow. It will even after this have a large area, which will be sold from time to time in town lots as the town is built up and the demand is created for such properties.

The estimate, based upon the experience of localities and communities far less favored by nature, is that the land and improvement feature will eventually return to the stockholders two or more dollars for each dollar paid by them. The lots they get with their stock, it is believed, will, so soon as the capital now called for is paid in, be worth more than the price paid both for stock and lots. The 95,000 acres of land referred to embrace a number of choice tracts of mineral land, but the company, when its capital shall have been subscribed, will have the option of purchasing so much of the land offered as it may upon full consideration find it desirable to acquire.

Terms of Subscription.

The company now invites subscriptions to its capital stock to the amount of $1,500,000, and not exceeding $2,000,000, and it reserves the right to accept or reject any subscriptions which may be made in excess of that sum. The shares will be allotted in the precise chronological order in which they are subscribed for.

The shares are $100 each to be sold at par, payable $5 on subscription, $20 on call of the board of directors not earlier than 15th May, 1889, and residue in instalments of $10 to $20 each per share, in 3, 9, 12, 18 and 24 months thereafter.

The subscriber for every two shares will have the privilege of purchasing one lot in the town of Glasgow at ten dollars per lot, and the subscriber for 30 shares may purchase 14 lots and one villa site of an acre or more, in or about said town, for $10 for each lot and for such villa site.

All payments on stock or lots must be made directly to the Manhattan Trust Company, 10 Wall Street, New York, or to the Treasurer of the company, Lexington, Virginia. Persons desiring to subscribe for the stock will find books of subscription open at the office of the Manhattan Trust Company, New York, the banking house of Warren & Quarles, Richmond, Va., and at the office of the company, Lexington, Va.

Applications for stock may be addressed to the Manhattan Trust Company or to the Treasurer, Secretary or any of the officers of the company. Parties desiring to subscribe for the stock are requested to carefully examine the prospectus of the company and the descriptive memorandum published therewith (which can be found at the above named offices, or can be had on application to any officer of the company) for fuller information as to the purposes and properties of the company and the terms upon which its stock can be had.

The following are the officers of the company under its preliminary organization:

President—FITZHUGH LEE, Richmond, Va.
Vice-President—WILLIAM A. ANDERSON, Lexington, Va.
Treasurer—JAMES K. EDMONDSON, Lexington, Va.
Secretary—G. D. LETCHER, Lexington, Va.

DEPOSITORIES.

Manhattan Trust Company, 10 Wall street, New York.
Bank of Lexington, Virginia.

DIRECTORS.

FITZHUGH LEE, Richmond, Va.
FRANCIS O. FRENCH, 10 Wall street, New York.
A. W. HARMAN, Richmond, Va.
E. A. PACKER, No. 1 Broadway, New York.
WILLIAM A. ANDERSON, Lexington, Va.

Wythe County, Va.

First Premium Mineral and Timber County of the State.

Awarded at Richmond Exposition, 1888.

The best Mineral, Timber and Agricultural County inviting the attention of Railway and Manufacturing Capitalists in the Appalachian Chain.
The best bodies of Mineral and Timber are in close proximity to water powers of unlimited capacity.
No finer health resort in the world. Has an elevation of 2,300 feet above sea level. Ores and Minerals in greatest profusion and variety.
IRON ORES.—Brown, Red and Magnetic, occupying 110 square miles of the county territory. Less than 10 square miles of these now yield annually over 130,000 tons of ore.
ZINC AND LEAD—The largest deposits in the world. These mines supplied the armies of the Patriots of '76 with lead. The first lead mined in this county was in 1756.
SEMI-BITUMINOUS COAL.—Occupies 25 square miles of the county's territory. Limestone for fluxing and for lime in purest qualities known The decomposition of which makes the most productive soil for grain and grasses.
SUPERIOR FIRE CLAYS are now being discovered.
MINERAL WATERS of great excellence, with *established reputations* of many years, such as Lithia, Bromide-Arsenic, Sulphur, Chalybeate and Alum.

Splendid Agricultural Facilities.

NATIVE BLUE GRASS, luxuriant growths of Timothy and Clover. Average yield of Wheat, 15 bushels to the acre. The highest yield of Corn to the acre, 105 bushels. Finest location for Creameries in the South.

The Timber Lands of Wythe County,

Unexcelled for the character, quality and production of its *hard woods*, such as White Oak, Hickory, Walnut, Poplar, Pine, Hemlock and Ash.

Large Forests of Car Lumber White Oak.

All Capitalists, Manufacturers and Farmers are cordially invited to come. Lands are cheap. Iron can be made as cheap as in Birmingham, from the finest ores in the world. The Farming Lands are the best all-round crop lands in the entire South.
For any further information, address

FRANK ST. CLAIR, Secretary County Committee,
Box 37, Wytheville, Va.

A SUMMER RESORT
2,300 Feet Above Sea Level.
Pure Oxygenated Air, Broad Streets, Fine Pavements, Mineral Waters.

WYTHEVILLE,

★ VIRGINIA. ★

THE COMING
Winter Sanitarium
OF THE SOUTH.
Dry Atmosphere, Tempered Winds, Pure Water, Macadamized Streets, Turnpike Roads, Mineral Waters.

"THE SARATOGA OF THE SOUTH."

AN ALL THE YEAR-ROUND RESORT.

☞ With its present capacity cannot accommodate the crowds of summer visitors. Hence, to secure a large modern hotel the town council will donate a site containing ten acres of land, beautifully situated, with commanding views of surrounding mountains, and perfect drainage, to any person who will build one.

The town is situated on the summit of the Alleghanies, 2,300 feet above tidewater, 183 miles from Lynchburg, 71 from Bristol, Tenn., and on the line of the Norfolk & Western Railroad, midway between New York and New Orleans. Population 3,000. No better place situated for a summer and winter resort.

Its air is pure and invigorating. During the summer months a pleasant mountain breeze cools the heat of midday, and a blanket is requisite for comfort during the night. It is recommended by eminent physicians to those suffering with consumption, catarrh, dyspepsia, nervous prostration and insomnia.

It is beautifully laid off in squares, with wide streets, many of which are macadamized and adorned with spacious yards. It is the center of a network of country roads, all affording delightful drives for health and recreation. It is situated in the famous blue grass region, and the grass is of spontaneous growth.

It contains an ever flowing fountain of excellent alum-chalybeate water on Main street, especially recommended for dyspeptics and delicate ladies and feeble children, free to all. Within a few miles is the celebrated Cove Lithia Springs, specially noted for its curative powers. Limestone and Freestone Water can be had in abundance.

Its church, school and collegiate facilities are superior to those of any summer resort in the State.

FREE FROM MALARIA. FREE FROM MOSQUITOES. FREE FROM CYCLONES. FREE FROM EPIDEMICS.

19 Hours From New York. 12 Hours From Washington. 37 Hours From New Orleans. 24 Hours From Memphis. 20 Hours From Louisville. 12 Hours From Nashville. 24 Hours From Savannah. 15 Hours From Atlanta. 6 Daily Trains. 1 Telegraph Office. 2 Banks. 1 Insurance Company. 2 Weekly Papers.

ADDRESS C. W. GLEAVES, Mayor.

Anniston

THE CENTER OF

Iron and Cotton Industry

AND MINERAL WEALTH.

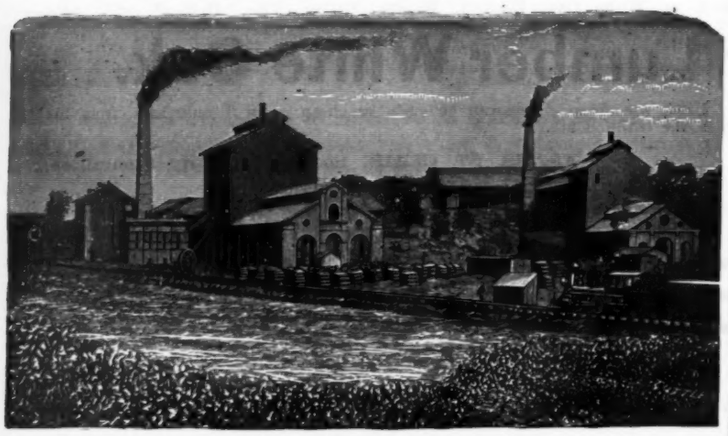
"The Model City of the South."

IT IS

The Profits of Labor only that can add to the wealth and prosperity of a nation or community. It is this only that can make business successful and profitable, sustain and add to the value of real estate.

WHERE

Nature's resources are greatest, where nature's capital in rich agricultural lands, and where iron, coal and other useful minerals are most abundant, most accessible and of superior quality for all purposes, there will capital find its safest investment, largest returns and labor reap its richest reward. It is to the Anniston District where the best professional mining engineers and experts of the United States declare the great center of the iron industry of the South will drift, where its manufacture will be most permanent and profitable, and where ores in the greatest abundance and accessibility exist, and where they will be most easily mined, that this applies.



WOODSTOCK FURNACES—ANNISTON.

The Development of the Past Fifteen Years

Confirms all this, and every year convinces the experts of the correctness of their judgment. It is no longer opinion based on scientific and practical education; it is a fact that is clearly and successfully demonstrated, so that the visitor to the Anniston District can see at every step. The four iron furnaces that have been so long and successfully operated, and the new plant now being erected, and rapidly approaching completion, which will be capable of producing one hundred thousand tons of pig iron a year, demonstrate that

NOWHERE ELSE IN THE SOUTH

Has the iron industry been so profitable and so successful, or been established on so permanent a basis, and of no district is this so universally conceded by all, while nowhere else have arrangements been perfected and already established on so complete a scale to work the crude iron into higher branches of manufacture to increase its value, and to bring into the district the profits of skilled labor. THE GREAT CAR WHEEL WORKS OF NOBLE BROS. & CO., their rolling mill and steam forge and machine shops, and the Alabama Car Works, have been absorbed by the

UNITED STATES ROLLING STOCK COMPANY,

With a capital of $4,000,000, for the purpose of adding to and enlarging the entire plant to build TWENTY CARS A DAY. Everything that goes into the creation of a car, except the tin for the roof and the wire nails, will be created from Anniston's crude material by her labor and skill. Fifty tons of wheel iron will be made into car wheels daily, twenty tons into car axles, fifty tons of pig iron into car and other castings, and fifty tons into bar iron and bolts, making nearly ten thousand dollars per day added to the wealth of the country by profitable labor converting nature's capital to the use of man. This company have a capital of $4,000,000, and their Anniston works will represent a cash outlay of $1,000,000. One thousand skilled mechanics will be employed as soon as the great enlargements under way can be completed.

THE STEEL BLOOMARY

Consumes and increases the value of twenty tons of pig iron per day, while the Pipe Foundry converts to the use of man TWO HUNDRED TONS OF PIG IRON PER DAY in one of the largest and best planned and most convenient labor-saving works on this continent. *The Foundry of Murray & Stevenson, Engine and Machine Works of Pinder & Co., and Boiler and Sheet Iron Works of J. & D. Noble*, all add to the consumption of crude material by the creation of finished work.

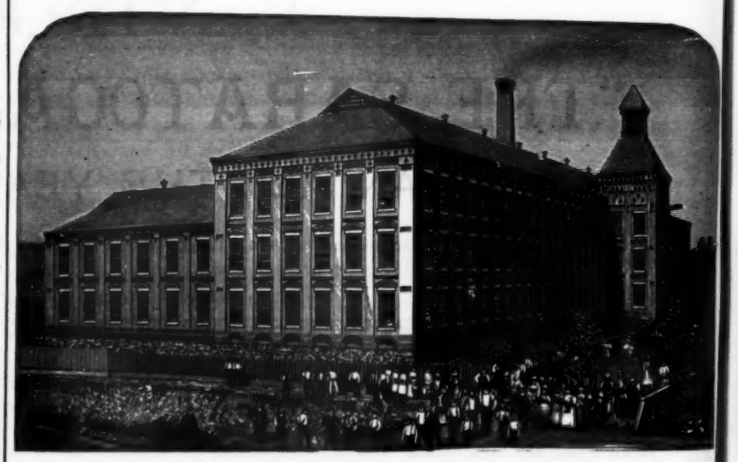
NOR IS IT TO IRON ALONE

That Anniston relies for increase of wealth and population. The Cotton Factory, with eleven thousand seven hundred spindles and three hundred and seventy-five looms, employing over three hundred and fifty operatives, adds greater value to the products of agriculture by converting six thousand bales of cotton into cotton cloth. The immense ninety-inch Morse Cotton Compress, with its brick warehouses, is fast making Anniston a cotton market and commercial center, and aiding its wholesale and retail merchants to extend and hold the trade of the country tributary to Anniston that its system of railroads has opened to them. The Georgia Pacific, the East Tennessee, Virginia & Georgia Railroad systems,

Give Direct Communication and Through Rates

To all parts of the country, while the Anniston & Atlantic Railroad, built by Anniston capital to open up new agricultural and mineral resources, gives Anniston, by connection with the Central of Georgia system, communication with the Atlantic sea coast and the new Anniston & Cincinnati Railroad, built and owned by Anniston citizens, opens up new resources and connections, and a shorter line with the great Northwest.

The proposed extension of the Anniston & Atlantic Railroad to Blocton will give another and shorter line to the great Cahaba Mines, producing the very best coal for domestic and manufacturing purposes in the South. Forty thousand acres of these coal lands, upon which a million and a half dollars have been lately spent in opening new mines and building several hundred coke ovens, ALL OWNED AND CONTROLLED BY ANNISTON CAPITAL, and developed to mine and manufacture three thousand tons of coal and coke per day, secures to Anniston for generations to come a full and certain supply of cheap fuel for all her industries, operated where a rich agricultural country can feed a mannfacturing and commercial people, and where the



ALABAMA MANUFACTURING COMPANY'S COTTON MILL—ANNISTON.

Best, Healthiest and Most Invigorating Climate in the World,

With mountain air and pure water, and an elevation of nine hundred feet above tide water, insures the health and comfort of the workman and his family; where health and comfort stimulate and lighten labor, and secure to it and its industries the reward due to both. It is these advantages which have been given by nature that enabled Anniston's citizens to create her past and present prosperity, and which secure her future. It is that they may participate in and avail themselves of these advantages that Anniston invites NEW CAPITAL AND TALENT AND ENERGY from all sections. We invite all to come and see, and on the spot to judge for themselves of Anniston's great resources and possibilities. The comfort and quiet of the famous Anniston Inn will make a visit to our city a treat and pleasure. Any information, attention and courtesy will be given and shown by addressing or applying to the

ANNISTON CITY LAND CO., Anniston, Ala.

NEW DECATUR,

★ ALABAMA. ★

The New Industrial City of the Great Tennessee Valley.

DECATUR is situated in Morgan County, in Northern Alabama, on the great Tennessee River. New Decatur, at first an addition to Decatur, is now a separate municipality. It is free from overflow or miasmatic influences, and enjoys refreshing breezes throughout the summer season. All the geographical conditions of Northern Alabama are favorable for a mild, salubrious and uniform climate. Great extremes of temperature are never experienced here. Decatur lies midway between the heat of the extreme South and the severe cold of the North. The nights are always cool and pleasant. The winters are mild. Potatoes and other early vegetables are planted in January and February, and mature and come into market about the time people are making their gardens in the North. The mortuary statistics prove the climate to be very healthful. Yellow fever was brought to Decatur from Florida in 1888, and lodged in the old town, owing to the tearing up of streets for the purpose of ballasting, but this will be guarded against in future. New Decatur was not affected. The water supply is abundant, and of the purest quality. Within a few miles of Decatur are famous mountain resorts, delightful places for pleasure seekers and homes for invalids, including the Monte Sano Hotel, situated on a mountain 1700 feet above the sea level, overlooking the quaint old town of Huntsville, celebrated for its wealth and social refinement, and its wonderful spring. From this mountain is to be seen a panorama of picturesque scenery rarely equalled.

Adjacent to Decatur in the Tennessee Valley are some of the finest farming lands in the world. The soil is a rich mineral, producing luxuriant crops of every grain, vegetable and fruit of the temperate zone, and is especially adapted to wheat, corn, oats, the best of grasses, garden products, cotton and tobacco. Wild lands can be bought at very low prices, and improved farms that will compare favorably with the best in Ohio, Indiana, and Pennsylvania, at moderate prices. Land can be rented for truck farms at from $3.00 to $5.00 per acre, and the crops find ready sale at home or for shipment North at remunerative prices. Labor for farm purposes is cheap and easily procured. The special advantages of Alabama for stock raising are worthy of attention, both as regards climate, abundance of native grasses and water, and the advantages of markets.

As regards the great iron industry, which is attracting the attention of the civilized world to the "New South," the location of Decatur is very favorable for the manufacture of iron at low cost. Iron ore for the manufacture of ordinary charcoal or coke iron is laid down here from the iron districts south of Decatur at $1.85 per ton. Within easy distance are abundant supplies of fuel and limestone, and the very best charcoal is manufactured here. Ordinary pig iron can be manufactured at a cost not exceeding $11.00 per ton, and car-wheel iron at $14.00. The inducements for establishing foundries, forges, rolling mills and other works for the manufacture of the enormous future production of iron in Alabama are not surpassed at any other point. Coal for manufacturing purposes is now delivered in Decatur by rail from the great Warrior coal fields for $1.85 per ton. The mines up the river are preparing to deliver coal in barges, which will reduce the price. In the production of coke, Alabama ranks second only to Pennsylvania. At or near Decatur can also be obtained the best of limestone, asphalt, building stone, fine marbles and granite, sand for glass making manganese fire clay, and the finest of clay for brick.

There is no more favorable location for cotton mills than at Decatur, the advantages for procuring the raw material and labor, and in the way of freights, being unsurpassed.

Adjacent to Decatur is a wealth of the finest timber in the world, consisting of extensive pineries, and immense forests of oak, walnut, poplar, ash, cherry, and gum. Decatur is one of the largest hard-wood producing centers in the South, and is above all things especially adapted for every description of wood manufacture.

The facilities for transportation are already excellent, and will soon be unsurpassed. Two trunk lines cross each other at Decatur, the Louisville & Nashville, and the East Tennessee, Virginia & Georgia. Two more roads are in course of construction. Thirty rivers will be accessible by steamers after the completion of the Government works at Mussel Shoals, below the city, in June, 1889, and the Tennessee River will be opened to navigation from Knoxville, Tenn., to the Ohio and Mississippi. As the "long-haul" clause of the Inter-state Commerce Law does not apply to places located upon navigable waters, this will result in active competion between the railroads and steamboats. The railroads at Decatur have built switch tracks through the manufacturing districts of the city, and a company has been formed to build a belt line. There is no better location in the United States for any kind of manufacture, especially wood, iron and cotton manufactures. There are also great opportunities for investment in building, for sale or for rent. There is a constant demand for the best skilled and common labor at good wages. On the 11th of January, 1887, the Decatur Land, Improvement and Furnace Company was organized for the promotion of the interests of Decatur, and they can point with pride to what they have accomplished. Under the direction of skilled engineers, landscape artists and architects, imported from the Eastern cities, they have laid out a beautiful city adjoining Decatur, known as New Decatur, with a thorough system of drainage, sewerage and water supply. They have increased the population from 1,200 to 7,000. They cordially invite every kind of productive industry to come here, assuring them liberal encouragement.

The Tavern,

New Decatur.

This beautiful hotel, built in the picturesque Queen Anne style, is owned and managed by the DECATUR LAND, IMPROVEMENT & FURNACE COMPANY. It is situated on the highest ground in New Decatur, near the company's new Union Depot.

Next to the famous "Ponce de Leon" in Florida, it has the most elaborately designed, fitted up and furnished interior of all the Southern hotels. The wainscoting and furniture throughout are of polished Alabama oak, and the frescoing, which was done by Tiffany of New York, is in perfect harmony with the surroundings. The whole house is a marvel of artistic taste, cosy comfort and exquisite cleanliness. It is lighted throughout by electricity. Externally, the spacious verandahs and porches remind the traveler of the hotels at the best class of summer resorts. Massive arches of handsome stone at the entrance porches add an element of solidity to the general appearance. At present the house can accommodate 125 guests with ease. In the near future the original plan will be carried to completion, by adding a wing of the same design, and so doubling the capacity. No feature of this unique establishment will excite more favorable comment than the bill of fare, the cookery and the service. The traveler will find the dining room an oasis in the desert of his experience with the average of even first-class hotels. The object of the Land Company is not that of the ordinary landlord, simply to make money, but to attract and please. "The Tavern" is intended to be and is a trump card in advertising Decatur.

For Maps, Illustrated Pamphlets and Specific Information, Address

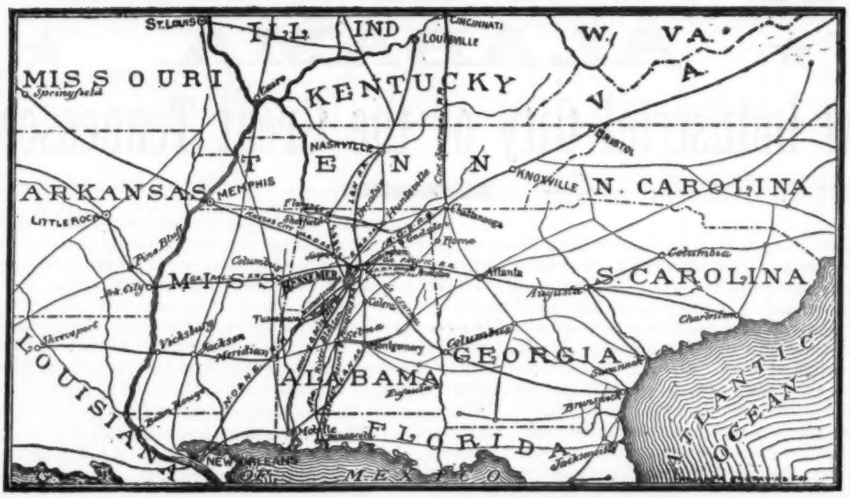
The Decatur Land, Improvement & Furnace Company

NEW DECATUR, ALA.

BESSEMER, ALA.

WHERE IS BESSEMER?

Located according to its latitude and longitude, Bessemer is in 33 deg. 20' North latitude and 57 deg. West longitude from Greenwich. Its position in the State of Alabama is just above its center and about midway between its eastern and western boundaries. Its position in the Southern States is a noticeably central one It is midway between Montgomery and Decatur, between Meridian and Chattanooga, Mobile and Nashville, Savannah and Memphis, New Orleans and Louisville, all of which will readily appear from the map published herewith. So far as its geographical location is concerned it could not well be more central, more on the lines of communication and transportation between the leading and principal commercial and manufacturing centers in the South. It has lines of railway leading direct to Texas, via Vicksburg and Shrevesport and via New Orleans; to Gulf ports, directly to New Orleans, to Mobile and to Pensacola; to all of the Atlantic ports and to the North, Northwest and West. No city of its age was ever so favored with so admirable, comprehensive and extensive a system of railway transportation.



THE RAILWAYS OF BESSEMER.

In an area of four blocks, nine lines of railways center:

The Alabama Great Southern R. R.
The Louisville & Nashville Min'l Line.
The Bessemer & Huntsville R. R.
The Georgia Pacific R. R.
The Kansas City, Memphis & Bessemer R. R.
The Bessemer & Tuscaloosa R. R.
The Bessemer Dummy Line (standard gauge).

All of these lines are running to Bessemer. The Bessemer & Huntsville is completed as far as Village Springs, forty miles on the way up Murphree's Valley, with its ultimate terminal point at Huntsville. It is being rapidly extended.

The Bessemer & Tuscaloosa is completed to Woodstock, a distance of thirty miles, lacking only eighteen miles of reaching Tuscaloosa. At Woodstock this line connects with the Blocton Coal Mines Railway.

The lines of the Bessemer, Selma & Pensacola R. R. and Mobile & Bessemer R. R., now under contract and in process of construction, both center in this area.

The Sheffield & Bessemer R. R. is projected to Bessemer. It is now built as far as Jasper, forty miles northwest of Bessemer.

On the 12th of April, 1887, the first lot was sold in Bessemer; on the 15th of the following September the place was incorporated as a city, having then a population of 1,500 people. At this time, 1st September, 1888, it has a population of 3,500. It has over 400 different structures, some of them business blocks that would highly credit a city of a hundred thousand population. Over two million dollars so far have been invested in improvements. It has completed the largest rolling mill plant in the South, and two of the largest iron furnaces, extensive foundry and machine shops and planing mills. Five more iron furnaces are under contract, three of them with foundations already being laid. An enormous furnace factory, machine shops and boiler works are being located, and will construct the five furnaces mentioned. An enormous fire brick, tile and terra cotta plant is being established; has already commenced the manufacture of fire brick and will regularly employ 200 hands.

MONTEZUMA HOTEL, 194x150, OPENED NOV. 1, 1887.

WHY DOES BESSEMER GROW SO RAPIDLY?

Because it presents opportunities for the investment of capital, the establishment of manufactories and industrial institutions and for labor, common and skilled, that are unusual and unrivalled. In Bessemer, pig iron is being made cheaper than at any other point in the United States. The iron ore, the coking coal and the limestone are almost within a stone's throw of the city. The site of Bessemer is superb, unusually attractive, unimpeachably healthy, with thorough drainage and first-class water works. It is already a leading manufacturing point, and is destined to become one of the principal manufacturing centers in the South. Schools and Churches are already established.

The illustrations are of two structures already completed, one costing $125,000 the other $40,000. There are a large number of similar structures in Bessemer already completed.

CHARLESTON BLOCK, 300 FEET FRONTAGE, 2D. AVE., BET. 18TH AND 19TH STREETS.

ANY INFORMATION CONCERNING BESSEMER WILL BE PROMPTLY FURNISHED BY THE

Bessemer Land & Improvement Company.

WM. BERNEY, President. H. M. McNUTT, Secretary.

FORT PAYNE, Alabama.

★ COME TO ★

The NEW ENGLAND CITY of the South.

Climate Unsurpassed. Abundance of Pure Water. Drainage Excellent.

No Better Point in the Union

For Safe and Profitable Investment.

Situated on the main line of the Cincinnati, New Orleans & Texas Pacific Railroad, fifty-one miles Southwest of Chattanooga, and ninety-one miles North of Birmingham Elevation is from 895 to 1,600 ft above the sea, and above fever districts.

DeKalb County is entirely free from debt; taxes light.

Most liberal encouragement given to industries of every kind.

Iron Furnace and Rolling Mill will be constructed immediately, and other industries of various kinds are under contract.

Correspondence solicited from those who contemplate coming into the South to establish any kind of manufactories.

The different industries will employ at least two thousand skilled workmen, which will secure a population of over ten thousand, independent of the many industries contemplated.

Iron of the best quality can be manufactured at as low cost per ton as in any other locality in the South.

Coal and iron are being developed rapidly of a superior quality.

Fine timber abundant and wood-working machinery of every kind can be profitably employed at this point.

The Company is prepared to give every reasonable encouragement to manufacturers who will locate at this point.

☞ Correspondence solicited.

CAPITAL $5,000,000.

OFFICERS.

President, - - - - COL. J. W. SPAULDING
First Vice-President, - HON. D. H. GOODELL
Second Vice-President, - HON. HENRY B. PEIRCE
Secretary, - - - - C. L. T. STEDMAN
Treasurer, - - - - - - F. H. TOBEY
Manager, - - - - - C. O. GODFREY

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HON. HENRY B. PEIRCE, Secretary of State of Mass.
GEN'L SELDEN CONNOR, Ex. Gov. of Maine, Pres. Northern Banking Co., Portland, Maine.
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COL. JOHN B. BODDIE, Birmingham, Ala.
W. P. RICE, Pres. Union Investment Company of Kansas City, resides Fort Payne, Ala.

FORT PAYNE COAL & IRON COMPANY, Fort Payne, Ala.

SHEFFIELD, ALA.

The Iron Manufacturing Center of the South.

At the head of navigation, on the Tennessee River, Sheffield is the **natural outlet** for the mineral and manufacturing products of Alabama and the neighboring States seeking a water route to points on the Ohio and Mississippi Rivers, and to the Gulf of Mexico, as well as the best **distributing point** over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. Three Railroads already completed and in operation, and several others assured. **Principal shops of the Memphis & Charleston Railroad,** in which cars and locomotives are to be built, are under contract to be erected here. These will employ between **four hundred and five hundred mechanics**, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here, some of them being now under construction.

Five Completed Blast Furnaces,

HAVE A CAPACITY OF 700 TONS PIG IRON PER DAY.

Experts do not hesitate to say that iron can be manufactured more cheaply at Sheffield than at Birmingham, and its river transportation facilities will enable Sheffield iron to reach the principal markets at a saving of from

$2.00 TO $2.50 PER TON.

The quality of the iron produced is pronounced by consumers to be the best from any furnaces in the South.

The following are among the Corporate and Private Enterprises belonging to Sheffield:

1 The Sheffield Land, Iron & Coal Company, capital $1,000.000.
2 The Sheffield & Birmingham Coal, Iron & Railroad Company, capital $7,500,000, owners and operators of three blast furnaces, the Sheffield, the Sheffield & Birmingham Railroad, coke ovens and coal mines near Sheffield.
3 The Sheffield Furnace Company, capital $150,000; assets $500,000.
4 The Lady Ensley Furnace Company, capital $200,000.
5 Enterprise Publishing Company, capital $25,000; publishes daily paper with associated press report and weekly paper.
6 The Electric Light and Gas Fuel Works, $25,000.
7 The Sheffield Ice Company, capital $25,000.
8 The Sheffield Manufacturing Company, $30,000.
9 The Sheffield Contracting Company, $60,000.
10 The Eureka Brick & Lumber Company, $30,000.
11 The Sheffield Furniture Manufactory.
12 The Howard & Busch Brick Company.
13 The Sheffield Bakery and Bottling Works.
14 The Sheffield Mineral Paint Company, $50,000.
15 The Sheffield Agricultural Works, $40,000.
16 The Sandstone Quarry Company.
17 The Sheffield Cotton Compress Company, $60,000.
18 Millar Brothers, Steam Laundry.
19 Water Works, already expended $30,000.
20 Sheffield Street Railway Company, $50,000.
21 Sheffield & Tuscumbia Street Railway Co., $50,000.
22 First National Bank, $100,000
23 Cleveland Hotel Company, $50,000.
24 Sheffield Hotel Company, $120,000
25 East Sheffield Land Company, $500,000.
26 Hull & Keller's Fern Quarries.
27 Vorhees' Galvanized Iron Cornice Factory.
28 The Sheffield Quarries.
29 Mobile Real Estate Company, $50,000.
30 Sheffield Real Estate Company, $125,000.
31 Sheffield & Mobile Improvement Company, $100,000.
32 Sheffield Stove Works, $50,000.
33 Henderson Milling Company, $100,000.
34 Globe Iron & Brass Works, $10,000.
35 Knowles Knitting Mill, $30,000.
36 Sheffield Tapestry Works, $40,000.
37 Robbins Machine Shop and Foundry, $50,000.
38 Sheffield Cotton Mill, No. 1, $50,000.
39 Owen Pink Mixture Company, $100,000.
40 Bell Telephone & Telegraph Company.
41 Fould's Shoe Factory, $20,000.
42 Enterprise Wood-working Company, $30,000.
43 The Sheffield Harness & Saddlery Company, $20,000.
44 Principal Shops of the Sheffield & Birmingham R. R.

Aside from the foregoing, the following are in course of construction and may be considered positive: Principal Shops of the Nashville, Florence & Sheffield Division of the Louisville & Nashville Railroad.

Reasonably certain to be secured in the near future are the following, in regard to which negotiations are pending: A Rolling Mill, a Large Machine Shop, a Cotton Mill, a Large Steel Plant.

GOOD WATER.

Free Public Schools and Churches

Drainage Excellent. Health and Climate Unsurpassed.

Splendid Opening for Men of Push and Energy.

No Better Point for Profitable Investment.

NO "OLD FOGY" ELEMENT HERE.

Sites for Manufacturing Enterprises,

AND FOR FREE PUBLIC SCHOOLS AND CHURCHES,

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, **700**; August 21st, 1887, by actual count, **2,583.** Increase of population, **300** per cent. in eight months, and only limited by accommodations. Present estimate (August, 1888) fully **3,500.** Four years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants. Limestone of excellent quality for fluxing iron in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of Brown Hematite iron ore within twenty miles, along the lines of two Sheffield railroads, which, by actual results in the furnaces, yield above 50 per cent. metal. Iron of high grade is being made with a pound of coke to a pound of metal—a result never before accomplished with Southern ores and coke. The Sheffield & Birmingham Railroad runs through the heart of the Warrior Coal Fields, which abound in first-class Coking, Steam, Gas and Grate Coal. Timber is abundant and cheap. The Memphis & Charleston Railroad, Sheffield & Birmingham Railroad, and Nashville, Florence and Sheffield branch of the Louisville and Nashville Railroad are now in operation into Sheffield. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the best combined river and railroad transportation center in the South. Every merchant and every established manufacturing enterprise is doing a profitable business. More are needed. For further information address

WM. L. CHAMBERS, Vice-President and Manager,

SHEFFIELD LAND, IRON & COAL COMPANY, - - - SHEFFIELD, ALA.

Fort Worth, Texas

THE CHICAGO OF THE SOUTHWEST.

Population in 1876, **1,100.** Population 1889, **32,000.** And is to-day the Largest Railroad Center of its Age in the World, and is the only gate through which everything must pass to the FAMOUS PANHANDLE of Texas, the greatest wheat-producing country in the world.

Fort Worth needs and will give substantial and hearty encouragement to Cotton and Woolen Mills, Iron Works and Machine Shops, Paper Mills, Tanneries, Factories for the manufacture of Wagons and Carriages, Furniture and all kinds of Woodenware, and all other manufactures.

WE HAVE THE RAW MATERIAL IN ABUNDANCE.

Fort Worth possesses advantages for **Investors, Manufacturers, Merchants, Professional Men and Home-Seekers** such as no other city in the Southwest can offer.

Fort Worth is 700 feet above the sea, and its Drinking Water is supplied by about 200 Artesian Wells, and from the manner in which

The Panhandle is Filling Up By Thrifty Farmers,

it is safe to predict, from the fact that Fort Worth alone is the entrepot of that great country, that she will, in twenty-five years, be

The Largest City in the United States

SOUTHWEST OF CHICAGO,

Excepting, possibly, St. Louis and Kansas City.

WHAT FORT WORTH HAS:

She has Seven National Banks, with a working capital of over $2,000,000.00.

She has one of the Best Holly Water Works System for supplying the City.

She has one of the best Fire Departments in the State.

She is one of the Healthiest Cities in the world.

She has 20,000 acres of Coal within ninety miles of the City.

She has mountains of Purest Iron within 150 miles.

She has system of Gas Works, and first-class Electric Plant Building.

She is erecting finest Board of Trade Building in the Southwest.

She has a complete system of Electric Street Railway.

She has eighteen miles Sewerage.

She has seventeen Churches.

She has forty miles of Graded streets.

She has between $100,000 and $200,000 in Public School Buildings.

She is handling nearly 40,000,000 pounds Cotton annually.

She has large Grain Elevators with capacity of 500,000 bushels.

She has Flour Mill capacity 1,000 barrels per day.

She has a Social Club with the finest Library Rooms in the State.

She has $1,000,000 worth New Buildings in course of construction and under contract.

Fort Worth is the Most Public Spirited,

Go ahead, stirring City in the Southwest, and its citizens have given away over $1,000,000 in donations to Railways and other Corporations to locate here, as the Constitution of the State precludes the voting or granting of Subsidies.

THE TEXAS SPRING PALACE,

A Grand Karporama of Texas. A Unique and Novel Creation, illustrating

Her Unlimited Resources, her Boundless Possibilities, her Wealth and Progress.

OPEN FROM MAY 29th to JUNE 19th.

For any further information address

Secretary of Board of Trade, FORT WORTH, TEXAS.

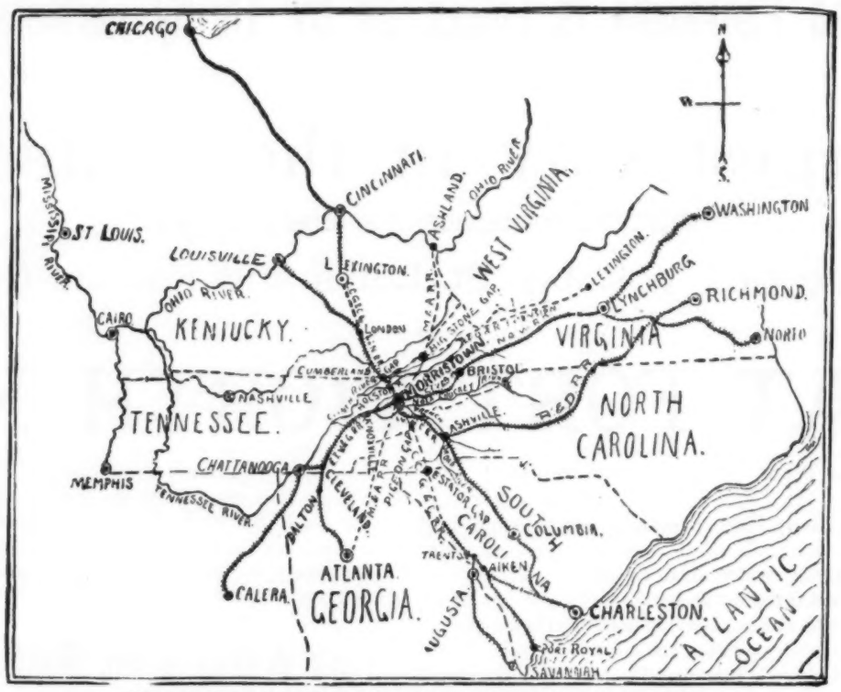
Morristown, Tenn.

The Plateau City of the Great Valley of East Tennessee

is beautifully located on a plateau of Bay's Mountain, about equi-distant from the Cumberland Mountains which bound East Tennessee on the northwest, and the Alleghany Mountains which boun l it on the southeast, and is 300 feet above Holston River, which washes the north base of the plateau three miles from the city. Its mean elevation above sea level is about 1,350 feet, while the hills and mountains immediately surrounding it rise to an altitude of 1,935 feet, affording views of surprising extent and grandeur, and at the same time so modifying the temperature that the thermometer rarely registers higher than 90° in summer or lower than 10° in winter. *Its drainage is admirable, and malaria is unknown. It has nearly trebled its population since* 1880, *having now about* 4,000 *inhabitants.* It is the commercial and business center of the richest and most extensive agricultural district in the State, where all the cereals and all the grasses and tobacco are grown to perfection, and where fruits and berries abound. It has hundreds of thousands of acres of unculled forests accessible to it, abounding in Poplar, Pine, Hemlock, six varieties of Oak, Chestnut, Hickory, Cedar, Maple, Birch, Beech, Sycamore, Gum, Locust, Laurel, Buckeye, Mulberry, Ash, Cherry and Walnut. *The Celebrated East Tennessee Marble* underlies a part of the city, and it is surrounded with rich deposits of Iron Ore, Manganese Ore, Zinc Ore and Lead Ore. It has been said by one who has made a study of the subject, that within a radius of 50 miles around Morristown *every variety of iron ore in the United States can be duplicated, and a coke can be made equal to Connellsville coke.* We claim without hesitation that **Morristown has in its immediate vicinity richer mineral ores, and a greater variety of them, than any city on the Continent.**

MORRISTOWN

has Railroad Facilities equal to any city between Lynchburg and Chattanooga, and they will be speedily increased by the completion of the Carolina, Cumberland Gap & Chicago Railway, making the shortest possible railway route between the great cities on the Ohio River, Cincinnati and Louisville, and the seaboard cities, Charleston, Port Royal and Savannah. Besides, the Baltimore & Ohio Railway will probably extend a branch to it from Lexington, Va., and the Tennessee Midland will in all probability be built to Morristown, and a line be built giving direct connection with Atlanta.



MAP SHOWING RELATION OF MORRISTOWN TO THE COUNTRY AT LARGE.

MORRISTOWN

has a citizenship composed almost exclusively of native born Americans. It boasts a splendid system of Graded Schools, Five Commodious Brick Churches, the finest Courthouse in Upper East Tennessee, an Opera House that will seat 600 people, two Solid Well Managed Banks, a flourishing Building and Loan Association, two of the Largest Commercial Flouring Mills in the South, Stove Works, an Agricultural Implement Factory, two Woodworking Factories, a Tobacco Factory, a Carriage and Wagon Factory, and many industries of lesser note.

It is lighted with electricity, and has water works under contract, and is now inaugurating a system of street railways. Its climatic advantages, its unsurpassed record for healthfulness, its abundance of pure water, its central and beautiful location, its transportation facilities, its fruitful agricultural surroundings, its contiguity to rich and exhaustless fields of iron, manganese, zinc and lead ores, marble, coal and timber, mark it as a place destined to be the commercial, manufacturing and railway emporium of Upper East Tennessee, Western North Carolina and Southeastern Kentucky.

To expedite this destiny the city authorities have wisely *exempted from taxation for ten years all manufacturing establishments* that will give employment to fifteen or more persons, and the county authorities have done the like, so that manufacturing establishments will be exempt from all taxation for ten years, except the merely nominal tax for State purposes. There has been no "boom" or inflation of prices at Morristown, and, as it possesses within itself and contiguous to it almost every element of wealth, it now presents the most inviting field for investment of any city in the South.

Persons who may desire fuller information can obtain it by calling on or addressing

MONTVUE LAND COMPANY

POSTOFFICE BUILDING,—MORRISTOWN, TENNESSEE.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

☞ In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Alabama—Mica Mining.—The East Alabama Mica Mining Co. will, it is reported, commence the development of their property shortly.

Anniston—Oil Mill.—E. T. Gennert and C. F. Redwitz are the parties lately reported as looking for a site for a cotton-seed oil mill. They have their machinery in Anniston.

Anniston—Rolling Mill—The United States Rolling Stock Co. have ordered a large new engine for their rolling mill.

Anniston—Railroad.—Robert Lawrence and A. J. Lawrence, of Menbo, Ga., and William Noble, of Anniston, and others have chartered the Anniston & Northeast Alabama Railroad Co. to build a railroad from Anniston to Alpine, Ga. A survey has been made. The capital stock is $100,000

Anniston—Sheet-iron Works, &c.—A sheet-iron and corrugating mill is projected. The Anniston City Land Co. can probably give information if anything is done.

Anniston—Machine Works.—Carl Redwitz and Mr. Genert, reported in this issue as to build a cotton-seed oil mill, are considering the establishment of machine works for the manufacture of their patent cotton seed oil mill.

Anniston—Furnace.—W. S. Williard, of Welshton, O., and E. B. Williard, of Hanging Rock, O., are prospecting, it is stated, for a site for an iron furnace.

Anniston—Rolling Mill.—John W. Noble is reported as preparing plans for a $100,000 plant, possibly the rolling mill previously mentioned as contemplated to be built by him.

Bear Creek—Saw and Grist Mill, &c.—Messrs. Brewer, Ellis and Green have formed a company to build a saw and grist mill and a cotton gin. Machinery is stated as purchased.

Bessemer—Iron Furnace.—T. T. Hillman, of Birminghan, states that he will not build an iron furnace as lately reported.

Birmingham—Laundry.—Leloup & Lee, 119½ 19th street, contemplate starting a steam laundry.*

Birmingham—Railroad.—Gibson & Corpening have contracted to build 14 miles of railroad for the Georgia Pacific Railroad Co.

Birmingham—Clothing Factory.—R. H. Courson & Bro. will enlarge their clothing factory to three times its present capacity.

Bridgeport—Planing Mill, &c.—The North Alabama Lumber & Manufacturing Co. are building a two-story planing mill 60x100 feet, instead of a saw mill as stated last week. They are also building a double dry-kiln.

Carbon Hill—Coke Ovens—The Kansas City Coal & Coke Co. will begin the erection at once of the 500 coke ovens previously reported if tests of coal, now being made, prove satisfactory.

Coalburgh—Railroad.—The Louisville & Nashville Railroad Co. (office Louisville, Ky.) are building the branch road to the new coal mines of the Sloss Iron & Steel Co., reported last week as to be opened near Coalburgh.

Columbia—New Town.—Columbia and Eufaula capitalists have purchased a tract of land at Kennedy's X Roads and will lay out a new town.

Cross Plains—Bridges.—The East & West Railroad Co., previously mentioned as to change the gauge of their road to standard, are preparing to make the change, purchasing cross-ties, etc. New iron bridges are to be built and bids will be wanted.

Florence—Cotton Mill.—Another cotton mill to cost $200,000 is to be built. The Lauderdale Manufacturing Co. can give particulars.

Florence—Tobacco Factory.—The W. W. Briscoe Tobacco Manufacturing Co. has been chartered with a capital stock of $30,000, for the manufacture of cigars, tobacco and cigarettes. W. W. Briscoe, of Henderson, N. C., is interested.

Florence—Stave Factory.—J. B. Briggs will move his stave and heading and saw mills, employing about 75 hands, from Briggs' station, Ky., to Florence.

Florence—Factory.—Mr. Fleme, of Cincinnati, O., is prospecting with a view, it is stated, of locating a factory.

Florence—Electric-light Plant.—The Florence Electric-light Co. will enlarge their plant.

Fort Payne—Brick-yard.—Another brick-yard has been started.

Fort Payne—Iron Furnace.—The Fort Payne Furnace Co. are receiving bids for building their iron furnace, previously reported. It will be 11½x55 feet.*

Fort Payne—Lime Works.—Lime works have been started.

Fort Payne—Steel Plant and Nail Factory.—The Fort Payne Rolling Mill Co., reported last week as organized to build a rolling mill, contemplate building also a steel plant and a nail factory. Capacity rolling mill will be 50 tons daily.

Fort Payne—Railroad—The Fort Payne Coal & Iron Co. have rejected all the bids for the construction of their 7-mile railroad, lately mentioned, and will build the road themselves.

Fort Payne—Dummy Line—The Fort Payne Land & Enterprise Co. has been organized with John R. Shields, of Birmingham, president; F. S. Ferguson, of Birmingham, vice-president, and E. W. Godfrey, secretary. The capital stock is $200,000. They own a tract of land and will improve same by opening streets, building dummy lines, etc.

Gadsden—Furnace.—The stockholders of the Gadsden Alabama Furnace Co. will meet June 6 to consider the issuing of $100,000 of bonds.

Greenville—Water Works.—Parties have offered to build the water works lately mentioned if granted an exclusive franchise. The mayor can give information.

Hull—Brick Works.—Bowling, Hubbell & Obering have ordered additional machinery for their brick works.

Huntsville—Cotton Factory.—Cincinnati, O., capitalists have organized a stock company to manufacture cotton duck, towels, sheetings, etc., and will build a factory with a capacity of 40,000 spindles.

Jacksonville—Dummy Railroad.—The Jacksonville, Williamsport & Anniston Railroad Co., previously mentioned as to build dummy railroad from Jacksonville to Anniston, will extend road 4 miles north to East & West Railroad. It is to be standard gauge road, laid with 60 lb. rails and will be used principally for hauling iron ores from mines to be opened along its line. Five miles of branches are reported to be built, making in all 20 miles of road.

Jasper—Railroad.—The railroad lately mentioned as being surveyed by the Alabama Timber, Coal, Iron & Railway Co. will be about 15 miles long, extending into their timber tract.

Jasper—Railroad.—Alfred Parrish, of Philadelphia, Pa., lately mentioned as purchasing the Sheffield & Birmingham Railroad, will, it is stated, soon commence extending it beyond Jasper.

Larkinsville—Saw Mill.—A band saw mill is being built near Larkinsville by the North Alabama Lumber & Manufacturing Co., of Bridgeport.

Lindale—Cotton Gin.—Jas. Johnson will put in new cotton gin.

Mobile—Box Factory.—Fred Lehrkind, lately mentioned as starting a factory for manufacturing axle grease, sealing wax, rosin, etc., will add the manufacture of axle-grease boxes and tin boxes.*

Mobile—Dry Dock.—James Flock will construct a dry dock, 200x70 feet, with a capacity of boats of 4,000 tons burden.

Montgomery—Bridge and Railroad.—The Alabama Midland Railroad Co. are negotiating with the city to build a combination railroad and wagon bridge across the Alabama river, which, if built, will result in the Alabama Midland Railroad being extended to a point on the Kansas City, Memphis & Birmingham Railroad.

Munford—Cotton Mill.—C. H. Simmons will probably start a small cotton mill, and is making investigations.*

Opelika—Iron Foundry.—Brown Bros., of West Point, Ga., are organizing a stock company to build an iron foundry. Capital will be $10,000.

Opelika—Bagging Factory.—The Lee County Farmers' Alliance are considering the establishment of a bagging factory.

Piedmont—New Town.—A syndicate has, it is reported, taken options on lands in and around Piedmont with the view to building an industrial town.

Renfroe—Railroad.—The Talladega & Coosa Valley Railroad Co., reported lately as to change the guage of their road from narrow to standard about June 1, will hold a meeting on June 1 to consider increasing their capital stock to $300,000 and issuing bonds for the improvements.

Rutledge—Railroad.—The Rutledge & Julian Railroad Co., lately mentioned, have organized with B. A. Walker as president; E. F. Dyer, treasurer, and M. Walker, secretary. Will soon start building road, which is to be 3 miles long.*

Seaborn—Saw Mill.—Captain Beeson has started a new saw mill.

Shelby—New Town, &c.—The name of the company mentioned last week as to be organized to build up a manufacturing town is the Shelby City Co. Capital stock is to be several millions.

Spring Garden—Water Supply.—A pipe will probably be laid to Glade Spring to furnish the town with water.

Stevenson—Corn Mill and Gin.—A corn mill and gin are to be built. The Stevenson Land & Improvement Co. can give information

Stevenson—Flour Mill.—A flour mill is reported to be built during the summer. The Stevenson Land & Improvement Co. can probably give information.

Talladega—Bagging Factory.—The Farmers' Alliance will build a factory during this year to manufacture either pine-fibre or cotton bagging. Address G. T. McEldery, business agent.*

Talladega—Cotton Factory.—Philadelphia, Pa., parties will shortly make personal investigations with a view to building a cotton mill.

Troy—Shoe Factory.—It is proposed to form a company to manufacture a fine grade of shoes if the Troy Shoe Manufacturing Co., lately mentioned as organized, do not manufacture such a grade of goods.

Warrior—Coke Ovens.—The Pierce-Warrior Coal & Coke Co. will, it is reported, build 75 or 100 coke ovens soon.

Woodstock—Coke Ovens.—The Edwards Iron Co. will, it is reported, build a battery of coke ovens.

ARKANSAS.

Batesville—Manganese Mine, &c.—Abbott & Ring, of Chicago, Ill., have purchased mineral land and are opening manganese mines, and will probably also develop coal mines.

Batesville—Mining.—The Arkansas Mining & Industrial Co. will put in new machinery for the development of their mines in Marion county.

Beebe—Well.—The St. Louis, Iron Mountain & Southern Railroad Co. (office, St. Louis, Mo.) will sink an artesian well.

Brinkley—Railroad.—The Louisiana, Kansas & Missouri Railway Co. has been incorporated by L. H. Root, of Little Rock; W. S. Thomas, H. M. Hoyt and others to build a railroad from Brinkley to the Louisiana State line, 150 miles. The capital stock is $2,600,000.

Camden—Brick-yard.—A brick yard has lately been started.

Carlisle—Canning Factory.—A canning factory is being agitated.

Fort Smith—Flour Mill.—H. B Salls and others, lately mentioned as to build a flour mill, are organized as the Fort Smith Milling Co. The capacity of the mill will be 125 barrels daily.

Hope—Water Works.—The Hope Water Works will put in the new pump lately mentioned, also casing and rods.

Mammoth Spring—Water Works, Electric-light Plant, &c.—The Mammoth Spring Water, Light & Motor Co., reported last week as incorporated, will build water works at once, and build an electric-light plant and electric railroad later.

Morrillton—Compress.—A cotton compress is reported to be built shortly.

St. Joe—Zinc Mines.—The company that is developing the Gray Eagle mines will, it is reported, enlarge their operations. T. M. Gibson, of Little Rock, is interested.

Walnut Ridge—Saw Mill.—Hungerford Bros. are building a saw mill near Walnut Ridge, also 3 miles of railroad.

Walnut Ridge—Shingle Mill—Shotwell & Perry are building a shingle mill near Walnut Ridge. Capacity will be 25 M daily.

Wynne—Wells.—The town authorities are sinking artesian wells with a view to securing a supply of water.

FLORIDA.

Cedar Keys—Oar Factory.—An oar factory is projected. J. A. O. Andrews can give particulars.

Cypress—New Town &c.—J. T. Porter has purchased 10,000 acres of land in Jackson county, and will divide same into small farms, on which to locate a Norwegian colony. A new town will be started two miles from Cypress.

De Land—Railroad.—Charles A. Webber

can give information about the tram-road lately mentioned as probably to be built to Lake Beresford. Distance is 4 miles.

De Leon Springs—Brick Works.—The South Florida Brick, Tile & Terra Cotta Co. will add brick machine.

Eatonville—Publishing.—J. Speight has commenced the publication of the Speaker.

Fernandina—Machine Shops.—The Florida Central & Peninsular Railroad Co. will shortly commence work on their machine shops. The cost will be about $100,000.

Florida—Land.—R. W. Boone, of Marietta, Ga., has sold 27,000 acres of land to Northern parties.

Jacksonville—Railroad.—The Jacksonville, Tampa & Key West Railroad Co. will lay heavier rails between Jacksonville and Palatka. They will also lay new 56-pound rails on their Indian river division.

Jacksonville—Cigar Factory.—Sego Myers and associates have made a proposition to build the cigar factory referred to last week. They will invest from $75,000 to $100,000 if given a bonus of $10,000.

Kissimmee—Water Works.—The Kissimmee Ice Factory Co. contemplate building water works. Population is 2,000.*

Kissimmee — Laundry. — Other parties than J. M. Towne & Co. contemplate starting the steam laundry mentioned last week.

Madison — Ginnery.—The Madison Cotton Ginning Co. will build a larger ginhouse to contain 50 gins.

Pensacola—Planing Mill.—A. J. Dorman, of De Funiak Springs, will establish the planing mill reported in last issue. The capacity will be about 30 M feet daily. Will manufacture building materials.

St. Augustine — Dummy Railroad.—The St. Augustine & North Beach Railroad Co., lately mentioned as organized, are making surveys and estimates of cost for their proposed road. It will probably be a dummy railroad.

Tallahassee—Railroads.—Bills have been introduced in the Legislature to incorporate the West Florida & Alabama Railroad Co., the Fernandina & Suburban Railway Co. and the Manatee River Railway & Navigation Co.

Welshton—Brick Works.—It is reported that brick works to cost $30,000 are being built.

GEORGIA.

Atlanta — Brick Works.— The Collins Brick Co., lately mentioned as to start brick works, have purchased site and ordered machinery with a daily capacity of 160,000 brick. They contemplate adding the manufacture of pressed and fancy brick.

Atlanta—Railroad.—The Central Railroad & Banking Co. (office, Savannah) are preparing to double-track their road from Atlanta to East Point.

Bainbridge—Compress.—C. C. Campbell and T. A. Woolfolk, of Albany, are prospecting with a view to erecting the cotton compress lately mentioned as projected.

Bainbridge—Saw Mill.—E. Swindell is building a saw mill 1 mile from Bainbridge.

Bainbridge—Saw Mill.—W. M. Blount will erect a saw mill. Power will be about 70-horse.

Barnesville—Variety Works.—B. F. Turner has purchased the variety works of J. J. Rogers, consisting of planing mills, grist mill and sash, door and blind factory.

Carrollton—Cotton Factory, Oil Mill, &c.—The $30,000 necessary to secure the erection of the $200,000 cotton mill by Boston (Mass.) parties, represented by Messrs. Lanier, of West Point, previously reported, has been raised. Mill building is to be of brick, three stories, and about 50x300 feet. It is stated that they will put in electric lights and possibly erect a machine shop, and contemplate building a cotton-seed oil mill.

Cartersville — Factories.— Parties interested in Florence, Ala., are negotiating with the Cartersville Land Co. to establish within a certain time factories to cost $250,000.

Cordele—Water Works.—Water works to cost $10,000 will, it is reported, be built. Artesian well is being sunk.

Cromer's—Toy Factory.—T. J. Crow & Bro. contemplate enlarging their toy factory by adding saw mill, &c.

Empire—Planing Mill.— The Empire Lumber Co. will at once rebuild their planing mill reported in this issue as burned.

Garlandville—Oil Mill.—Cannon & Johnson contemplate starting next winter a cotton-seed oil mill with a capacity of 15 tons daily.

Girard.—The Girard Peabody School District Investment Co. has been organized with Pierce Coulter, president, and R. E. Stockton, secretary. The capital stock is $10,000.

Guyton—Sewerage System.—A sewerage system will probably be established. W. B. Mell can give particulars.

Guyton—Cotton Mill.—A company is being organized to build a cotton mill by Hon. Morgan Rawls and others.

Hartwell—Corn and Flour Mill.—A. J. McMullan will repair and put in operation a corn and flour mill on the Savannah river in Elbert county.

Holly Springs—Marble Quarries, &c.—The parties who are developing the green marble quarries will put in additional machinery to enlarge operations. A branch road will be built to connect with the Marietta & North Georgia Railroad.

Machen—Compress.—J. A. & W. A. Roush, of Petersburg, Ind., will build the cotton compress mentioned in last issue.

Machen—Oil Mill.—New York parties are building a cotton-seed oil mill. E. C. Machen can probably give further information.

Machen—Barrel Factory.—The establishment of a barrel factory is contemplated. W. E. Baynes can give information.

Machen—Car Works.—Machinery for car works for the building and repairing of freight cars has been purchased. W. C. Leverett can give particulars.

Machen—Excelsior Factory—An excelsior factory will be built. Willis Newton probably can give particulars.

Machen—Oil Mill and Fertilizer Works. A cotton-seed oil mill and fertilizer works will be, it is reported, established. W. E. Baynes can give information if anything is done.

Machen—Plow Factory.—A plow factory is projected. W. C. Leverett can probably give information.

Macon—Brewery.—The Macon Brewing Co., previously mentioned as to build a beer brewery, have ordered machinery.

Macon—Potash Factory.—Thomas W. Troy, lately mentioned as to build a new potash factory, will soon commence work on building.

Macon—Water Works, Paper Mill, &c.—Northern parties contemplate building water works for fire protection, a paper mill, &c., and are, it is said, negotiating for the McCall property.

Macon—Spoke and Hub Factory.—J. A. & W. A. Roush, of Petersburg, Ind., contemplate the removal of their spoke and hub factory from that place to Macon.

Marietta—Railroads.—The building of a line of railroad to Austell and to Alpharetta is talked of.

Marietta—Water Works.—Water works will be built, it is reported. If correct the mayor can give information.

Marshallville — Crate Factory. — S. H. Rumph and others are building a crate factory.

Marshallville—Grist Mill.—J. O. Farrior contemplates starting a grist mill.

Marshallville—Brick-yard.—W. J. Walker will start a brick-yard. Has an engine.

Milledgeville—Oil Mill.—The American Cotton Oil Trust (office, New York) will build a cotton-seed oil mill and are reported as commencing work.

Milledgeville—Cotton Factory.—A $100,000 cotton factory is to be built if local parties subscribe $25,000.

Montezuma County—Saw Mill.—William Minor will erect a saw mill and has bought machinery.

Murphey—Saw Mill.—M. W. Murphey contemplates building a saw mill.

Myrtle—Grist Mill and Gin.—D. H. Houser, whose grist mill and gin were lately reported as burned, is rebuilding grist mill now and will rebuild cotton gin later.*

Oglethorpe—Saw Mill.—Mr. J. C. Hunter has started a saw mill.

Reynolds—Cotton Factory.—The Taylor Manufacturing Co. have refitted their cotton yarn factory with new machinery. Capacity is 1,300 spindles.

Savannah—Railroad.—A committee has been appointed to raise the $50,000 necessary to secure the extension, lately mentioned, of the Savannah, Americus & Montgomery Railroad to Savannah.

Savannah—Canal.—The Savannah & Ogeechee Canal Co. are making extensive improvements to their canal.

Savannah—Shingle Mill.—H. P. Smart & Bro. are building a shingle mill.

Valdosta—Lumber Mill.—M. L. Smith will add a planer, edger and shaving blower to his lumber mill.

Washington—Cotton Factory.—A cotton factory is projected.

Waynesboro—Cotton Mill.—Parties offer to subscribe $30,000 toward building a cotton mill if local parties put in $20,000.

KENTUCKY.

Bardstown — Turnpike—The Bardstown & Shepherdville Turnpike Road Co. have let contract for the construction of their road as follows: 1st and 2d miles to T. L. O'Neil; 5th mile to Wm. Brooks; 6th and 7th miles to Walker & Brown; 8th and 9th miles to Frank Walker. The average per mile is $1,428.

Brandenburg—Natural Gas.—The Royal Gas Co. has been chartered by J. C. Willett, J. D. Jones and others to develop gas and oil lands. The capital stock authorized is $1,000,000.

Brandenburg—Salt Works, &c.—Louisville parties have purchased the salt works, flour mill and 45 acres of ground from A. and J. S. Moremen for $65,000.

Brandenburg—Natural Gas.—W. B. Lancaster, Thos. H. Hamilton, R. H. Nevitt and others have incorporated the Bee Knob Gas & Mining Co. to bore for gas, oil, &c The authorized capital stock is $1,000,000.

Brandenburg—Natural Gas.—The Climax Gas Co. has been chartered by Wm. Ayers, A. J. Thompson, G. W. Richardson and others to develop gas and oil lands. Authorized capital stock is $1,000,000.

Brandenburg—Natural Gas.—The Headlight Gas Co., reported lately as to sink a gas well, has been chartered by J. F. Woolfolk, J. S. Moremen, R. M. Hardaway and others. The authorized capital stock is $1,000,000.

Brandenburg-Natural Gas.—The Eclipse Gas & Mining Co. has been chartered by D. C. Pusey, H. B. Livers, J. K. Wiles and others with an authorized capital stock of $1,000,000.

Burgin—Planing Mill.—A party has been prospecting with a view to building a planing mill.

Caney—Grist and Saw Mill.—A grist and saw mill will be built by Stacy, Lykens & Co.

Clay City.—Brick Works.—The Kentucky Union Land Co., lately mentioned as to start brick works, have contracted for machinery with a daily capacity of 20 M bricks.

Cloverport—Oil Wells, &c.—The Cloverport Mineral Co., reported last week, have let contract for two wells.

Covington—Syrup and Essence Factory. R. A. Holden, Jr., M. H. Alexander and Walter Werner have incorporated the Cincinnati Syrup & Molasses Co. for the manufacture of syrups, molasses, oils, essences, flavorings, etc. The capital stock is $50,000.

Cumberland Gap.—Railroad.—It is stated that the Louisville & Nashville Railroad Co. (office, Louisville) will soon commence the building of their road from Cumberland Gap to a connection with the Norfolk & Western Railroad at Big Stone Gap, Va., previously mentioned.

East Bernstadt — Saw Mill, &c.—The Nickle Plate Coal Co. will erect a saw mill and hoisting machinery shortly.

Frankfort—Mattress Factory, &c.—The Feeble-minded Institute, including the several factories reported in this issue as burned, will be rebuilt. Loss was $150 000.

Georgetown—Tobacco Factory.—A plug tobacco factory is projected. The Commercial Club can give particulars when anything is done.

Georgetown—Water Works.—The board of trustees, S. M. Davis, chairman, have contracted for the erection of the water works lately mentioned.

Harrodsburg—Water Works.— A stock company is being organized to build water works. E. H. Gaither can give particulars.

Henderson—Pipe Line.—The Trenton Rock Natural Gas Co., mentioned in last issue as incorporated at Louisville, have been granted exclusive franchise for furnishing the city with natural gas for manufacturing and heating purposes for 15 years. They are to begin work within 90 days.

Lexington—Machine Shops.—The Elizabethton, Lexington & Big Sandy Railroad Co. will build their new machine shops, previously mentioned, at Lexington.

Liberty—Publishing.—J. B. Stone, G. A. Prewitt and others will establish a newspaper.

Louisville — Artesian Well.— The city will sink an artesian well. The mayor can give information.

Louisville — Railroad.—The Louisville, Hardinsburg & Western Railroad Co. have issued $630,000 of bonds, and will at once commence building their road, previously mentioned.

Louisville—Natural Gas.—E. R. Montgomery, R. C. Davis, O. H. Harrison, J. S. Clark and Donald McDonald have incorporated the Consolidated Natural Gas Co. Authorized capital stock is $2,000,000.

Madisonville—Planing Mill.—A planing mill will be established.

Maysville — Woolen Mill.— Joseph H. Dodson contemplates starting a woolen mill.

Middlesborough—Brick and Tile Works. The Middlesborough Brick & Tile Manufacturing Co., capital stock $25,000, has been organized and will erect works at once. W. H. Kinnaird is president; J. E. Stormer, secretary, and I. C. Thompson, treasurer.

Middlesborough—Canal.—Steve Condon has been awarded the contract for digging a canal two miles long.

Moscow—Flour and Corn Mill.—R. L. Scearce & Co. will start a flour and corn mill and have contracted for machinery. Capacity for flour will be 70 barrels daily.

Mt. Sterling—Iron Furnace.—C. Russell, of Furnace, is considering the erection of an iron furnace.

Newport—Iron and Steel Works.—The Newport Iron & Steel Works have been purchased by Jno. W. Schneider for $67,000.

Owensboro—Railroad.—The Vincennes, Oakland City & Owensboro Railroad Co. have let contract for the construction of

their road, previously reported, to Hon. Jos. D. Powers. Work will, it is said, be commenced at once and pushed to completion.

Owensboro—Stone Quarry.—It is probable that a lithographic stone quarry will be developed on the line of the Owensboro, Falls of Rough & Green River Railroad, now building. R. S. Triplett can give information.

Pineville—Coal Mines and Coke Ovens. The Monarch Coal & Coke Co. has been organized to mine coal and build coke ovens. They own about 10,000 acres of land near Pineville.

Pineville—Coal Mines and Coke Ovens. J. H. Allen, formerly of Pocahontas, Va., has formed a company to mine coal and manufacture coke. Have leased lands and contracted for 200 coke ovens.

Rock Hotel.—Saw Mill.—Jno. H. Jackson has purchased a saw mill outfit.

Somerset—Barrel Factory.—Parties are negotiating to build the barrel factory previously mentioned, and will probably soon commence work.

Vanceburg—Tannery.—Frey Small has started a tannery.

Versailles—Gas Well.—A. M. Perham is reopening an old gas well near Versailles.

Zoneton—Flour Mill.—Jno. Crumbacher will change his flour mill to the roller system.

LOUISIANA.

Arcadia—Dry-kiln.—Fontenat & Taler have built a large dry-kiln.

Benton—Spoke and Handle Factory.—W. J. Thomas, previously reported as starting a shingle mill, will probably add a spoke and handle factory.

Centreville—Foos & Barnett will, it is reported, erect a Gaunt evaporator and 4 large filter presses at the sugar-house on their Shady Side plantation.

Concession — Sugar-house. — George P. Anderton is considering the erection of a double or triple effect on his Concession plantation.

Franklin—Sugar-house.—Rivers & Bidstup are making some improvements to the sugar-house on their Oak Lawn plantation.

Houma—Sugar Mill.—The heirs of Wm. A. Shaffer are erecting a supplemental mill and double effect on their Crescent Farm plantation.

Houma—Sugar-house.—John D. Shaffer will put in a double effect and otherwise improve his sugar-house.

Louisiana—Sugar Mill.—Mme. Earnest Burguere will erect a supplemental mill on her Alice B. plantation.

New Orleans—Machine Works.—Samuel Logan, H. R. Giffey, Frank A. Pattison, J. H. Sullivan and others have chartered the Southern Electrical Manufacturing & Supply Co, Limited, capital stock $50,000, to manufacture electrical machinery.

New Orleans—Sugar-house.—O. A. & F. M. Ames are improving the sugar-house on their Southside plantation in Jefferson parish.

New Orleans — Machine Works. — The Dunn-Sutcliffe Furnace Co. has been incorporated by James B. Dunn, Wm. W. Sutcliffe and David R. Calder for the construction of improved furnaces and all the work connected therewith. The capital stock is $22,500.

Pattersonville—Railroad.—Daniel Thompson is building 4¾ miles of railroad on his Calumet plantation.

Point-a-la-Hache—Rice Mill.—Haspel & Davis will remove their rice mill to Point-a-la-Hache.

Thibodeaux—Sugar Mill.—John Calder & Co. will erect a supplemental mill on their Orange Grove plantation.

White Castle—Sugar Refinery.—Zuberbier & Behan are putting in machinery for the refining of sugar on their Alhambra plantation.

MARYLAND.

Arrow City—Brick-yard.—McGowan & Hollingsworth are starting a brick-yard and may add the manufacture of tile.

Baltimore — Canning Factory.— Charles E., L. S., Chas. S. and Ira H. Houghton and Charles C. McColgan have incorporated the Houghton Packing Co. to continue the canning business of the late firm of Louis McMurray & Co. The capital stock is $100,000.

Baltimore — Publishing — W. H. Sadler, J. H. Wilson Marriott, E. Calvin Williams and others have incorporated the Sadler Publishing Co. with a capital stock of $20,000.

Baltimore. — The stockholders of the Coale Muffler Safety Valve Co. will meet May 30 to consider the increase of their capital stock to $100,000.

Baltimore—Electric-light Plant.—Geo. B. Pennock, of Chattanooga, Tenn., is endeavoring to organize an electric-light company.

Baltimore—Printing Office.—C. C. Bartgis & Bro., label printers, 23 South street, are putting in larger engine and boiler to increase capacity.

Baltimore — Refrigerators. — Chas. E. Savage, Robt. R. Graf, Henry C. Turnbull and others have incorporated the National Refrigerating Co. The capital stock is $300,000. They will license other companies now being formed to manufacture their machinery.

Baltimore — Abattoir.—The name of the company lately reported as incorporated by C. A. Lerian, Frank L Knell, Jas A. Nicholson and others to build abattoir is the Union Butchers' Slaughtering Co.

Centreville — Water Works.—The city council has issued $15,000 of bonds for water works. The stand-pipe system will probably be used. W. F. Harman can give information.

Elkton — Machine Shops.—George McQuilkin is building an addition to his machine shop.

Greensboro—Iron Bridge.—F. K. Field, of the Berlin Iron Bridge Co., of East Berlin, Conn., is preparing estimates for the county commissioners for an iron bridge over the Choptank river.

Jesup's—Canning Factory.—J. F. Lowekamp has enlarged his canning factory, building an addition 50x100 feet and adding new machinery.

North East—Oil and Gas.—James Mallon and others, are endeavoring to organize a company to bore for oil or natural gas.

Queen Anne—Canning Factory.—Dr. P. S. Reynolds is erecting a canning factory.

Rockville — Land.—Washington capitalists have purchased from the trustees of the Rockville Academy the West farm, containing 180 acres, and will open streets and lay out building lots.

Singerly—Railroad.—The Philadelphia & Reading Railroad Co. (office, Philadelphia, Pa.) is surveying, it is reported, a branch road to run from Oxford, Pa., to Singerly.

Winfield — Creamery.— A creamery is being started by Howard M. Zile.

Wolfesville—Creamery.—A branch creamery is being started by W. M. Palmer.

Washington, D. C.—Hotel.—H. L. Page has prepared plans for the addition to the Arlington Hotel, previously reported. It will be five stories high, 150x150 feet, with fire-escapes, steam heat, passenger and freight elevators, electric bells, etc. The cost will be $165 000.

Washington, D. C.—Bridge, &c.—The extension of California avenue through Georgetown Heights is being agitated. The cost would be about $25,000. Rock Creek would have to be bridged.

Washington, D. C.—The Consolidated Manufacturing Co. will consider the increasing of their capital stock from $2,000 to $300,000 on May 29.

Washington, D. C.—Printing.—The Evening Star Publishing Co., lately mentioned as to enlarge their building and put in additional machinery, will erect a five-story addition, 45x60 feet, to cost $15 000. Steam heat and elevator will be put in. F. W. Pelling is architect.

Washington, D. C.—Col. Jno. M. Wilson, U. S. A, will receive proposals until June 4 for constructing 2,000 square yards, more or less, of asphalt pavement, and 1,800 square yards, more or less, of asphalt walks in the public grounds, and repairing roads and walks in grounds of the Executive Mansion.

Washington, D. C. — Railroad. — The Washington & Sandy Spring Narrow Gauge Railroad Co. has been chartered in Maryland to build a railroad to Sandy Springs, Md., by Henry M. Baker, A. G. M. Provost and others.

Washington, D. C.—Brewery.—An English syndicate organized as the Washington Brewing Co., Limited, have, it is reported, purchased the brewery of Albert Cary. Their capital stock is £161,000.

MISSISSIPPI.

Bolivar — Stone.— Gottlieb Hartung, of Cincinnati, Ohio, will probably receive the contract for furnishing stone for the Providence Reach levee work. The contract will amount to about $90,000.

Brookhaven—Canning and Box Factory. The Brookhaven Canning & Box Factory has been organized with Dr. J. W. Martin, president; P. C. Maxwell, vice-president, and F. F. Becker, secretary, to establish the canning factory mentioned in last issue; also box factory. The capital stock is $10,000.

Day's —Railroad, &c.—The Louisville, New Orleans & Texas Railroad Co. (office, Memphis, Tenn.) are building a branch road to the Rosetta Grave Hills. They are also developing gravel for the ballasting of their road.

Day's—Gravel Mining, &c.—The Rosetta Gravel Paving & Improvement Co., lately mentioned as chartered at New Orleans, La., are preparing for the extensive development of their gravel hills and will operate steam shovel.

Greenwood—Oil Mill.—James Burke can probably give particulars of the cotton-seed oil mill reported in last issue as to be built.

Jackson—Oil Mill.—The American Cotton Oil Trust (office, New York) will build the cotton-seed oil mill lately mentioned and have secured a site. It will cost from $50,000 to $75,000.

Kosciusko —Compress.—A cotton compress will be erected by the Merchants' Warehouse Co. and others. A new company with $30,000 capital stock has been formed.

Meridian—Pottery.—The Meridian Pottery & Manufacturing Co. are putting in additional machinery.

Meridian — Woodenware Factory. — A woodenware factory will probably be established on the co-operative plan.

Natchez—Water Works and Sewerage.—J. A. Jones, lately mentioned as to build water works and a sewerage system, has organized the Natchez Water & Sewer Co. The company have issued bonds to the amount of $200,000 to carry out their plans.

Natchez—Broom Factory.—A broom factory has been started.

Vicksburg—Planing Mill, &c.-The Louisville, New Orleans & Texas Railroad Co., reported in last issue as to erect a roundhouse, will, it is said, erect also large planing mill for working car timber, and enlarge their machine shops and possibly build a saw mill. Capacity roundhouse is stated as to be 49 stalls.

Vicksburg — Oil Mill.—The Vicksburg Cotton Oil Co. will, it is reported, double the capacity of their cotton-seed oil mill this season.

NORTH CAROLINA.

Aberdeen— Planing Mill, &c.— W. C. Clark, of Boston, Mass., is erecting a large planing mill and dry-kilns.

Asheville — Dry-kiln. — The Asheville Lumber & Manufacturing Co. will build a dry-kiln.

Asheville— Turnpike.— The Buncombe Turnpike Co. has been reorganized with Hon. R. B. Vance, president, and T. W. Patton, secretary. They will improve their road.

Asheville—Tobacco Factory.—The Asheville Tobacco Manufacturing Co. is the name of the company lately mentioned as organized to establish a plug tobacco factory. Work has commenced on the factory building.

Big Falls—Cotton Mill.—The Big Falls Cotton Mill will be enlarged soon.

Burlington—Cotton Mill.—W. L. & Ed. C. Holt will enlarge their Elmira Cotton Mill, building another story and adding new machinery.*

Charlotte — Shoe Factory.— John Van Landingham, reported last week as organizing a company to manufacture shoes, is forming a $50,000 stock company. Will commence operations about last of this year.

Clinton—Distillery.—J. H. Royal is erecting a 50 horse-power water-wheel and will add other machinery to his whisky distillery.

Columbia Factory—Shuttle block Factory.—A. W. E. Capel will add to his chair factory machinery for manufacturing shuttle blocks.*

Columbia Factory—Railroad.—The Cape Fear & Yadkin Valley Railroad Co. (office, Fayetteville) will extend their Millboro branch from Millboro to Columbia Factory, and are making surveys.

Goldsboro — Electric-light Plant.— The Enterprise Lumber Co. will furnish power for the electric-light plant previously mentioned as to be built by O. H. Foster, and the plant will be located on their property.

Greenville— Factories.— An association has been organized to secure the establishment of factories.

Henderson—Cotton Factory.—A cotton factory is projected. If anything is done Thad R. Manning can give information.

Henderson—Tobacco Factory.—The establishment of a plug tobacco factory is contemplated.

Hendersonville—Canning Factory.—The Hendersonville Manufacturing Co., mentioned in this issue, contemplate starting a canning factory.*

Hendersonville—Stave and Barrel Factory, &c.—The Hendersonville Manufacturing Co., reported last week as organized to manufacture spokes, handles, &c., will add soon the manufacture of staves, barrels, &c.*

Hendersonville — Water Works. — The building of water works to cost not more than $25,000 is being agitated. F. Whitaker can give information.

Hickory—Brick Works.—A. E. Townsend and Alf. J. Cline have started brick works near Hickory.

Murphy—Marble and Talc Quarries.—Abraham and Oliver Kinsey, lately mentioned as to develop marble and talc quarries near Murphy, are interested in the Nolta Iron, Marble & Talc Co., by which company the quarries will be developed.

Nebo—New Industries.—A company, with A. A. Mausch, of Louisville, Ky., as president, and S. Russell, of Quebec, Canada, vice-president, have purchased several thousand acres of land, and will open streets

and improve land. They have, it is reported, contracted for the erection of large vinegar works, a cotton factory and a barrel and stave factory.

Nebo—Saw Mills.—Three saw mills have been built, it is reported.

Oxford—Tobacco Factory.—The name of the company lately mentioned as organized with Thomas E. Hicks, president, and John Webb, secretary, is the Hicks Tobacco Co. They have purchased a site and will erect a three-story brick factory building, contract for which has been let to Hundley Bros.

Raleigh—Car Works.—The North Carolina Car Co. are building an addition to their works to be used for the manufacture of sash, doors, blinds, &c.

Raleigh—Sewerage System, &c.—The city has decided to issue the $75,000 of bonds for a sewerage system, and $25,000 of bonds for street improvements, previously mentioned. The mayor can give particulars.

Raleigh—Cotton Mill.—The capital stock of the company mentioned last week as being organized to build a cotton mill will be $100,000. Julius Lewis and J. S. Wynne are interested.

Rockingham—Cane Mill.—S. T. Cooper will erect a sorghum cane mill.

Salisbury—Bobbin Factory.—John W. Davis contemplates starting a bobbin factory.*

Sandy Ridge—Saw Mill and Box Factory. Peter Hutcherson will rebuild his saw mill and box factory lately mentioned as burned.*

Scotland Neck—Cotton Factory.—The Scotland Neck Cotton Manufacturing Co., lately mentioned as chartered, have a capital stock of $30,000. They have let contract for building materials.

Tarboro—Cotton Mill.—The Tarboro Cotton Mill will be enlarged, it is reported, by an addition of 103 feet, giving room for 4,000 additional spindles.

Tarboro—Oil Mill.—The Conotoe Oil Mills, lately reported as organized to build a cotton-seed oil mill, have started work on building.

Wilmington—Bagging Factory.—Hansen & Smith contemplate starting a jute and cotton bagging factory at once if they can make suitable arrangements for machinery.*

SOUTH CAROLINA.

Abbeville—Oil Mill.—A company has been formed to build a cotton-seed oil mill. R. W. Cannon can probably give information.

Blacksburg—Sash and Door Factory.—Wm. M. Jones, of Salisbury, N. C., has purchased a site for a sash, door and blind factory.

Blacksburg—Foundry and Machine Shop. J. T. Wilder, of Roan Mountain, Tenn., has purchased a site for foundry and machine shops to cost $50,000.

Clover—Cotton Mill.—A stock company is being organized to start a cotton mill. J. R. Barron can probably give information.

Clover—Cotton Factory—The Clover Cotton Manufacturing Co. has been incorporated to build a small cotton factory. Capital stock will be from $50,000 to $100,000.*

Edgefield—Brick-yard.—The Edgefield Brick Co. have started the brick-yard reported last week. Capacity is 12 to 15 M daily.

Gaffney City—Iron Mine.—A company will be organized, it is rumored, to develop the property of the old Magnetic Iron Co.

Gaffney City—Railroad.—The Richmond & Danville Railroad Co. (office Richmond, Va.) will build a branch road to Limestone, one mile.

Guthriesville—Handle Factory.—Witherspon & Lowry have started a handle factory.

Johnston—Oil Mill.—A company is being formed to build a cotton-seed oil mill.

Spartanburg—Oil Mill and Fertilizer Factory.—Efforts are being made to secure the erection of a cotton-seed oil mill and fertilizer factory to cost about $75,000.

Williston—Cotton Factory—A stock company is being organized to build the cotton factory lately mentioned as projected. L. A. Green can probably give information.

Yorkville—Buggy Factory.—The paid in capital stock of the Carolina Buggy Co., reported last week as organized, is $21,000, which will be increased later in the year. They contemplate building new factory with daily capacity of 5 buggies.*

TENNESSEE.

Athens—Iron Furnace.—J. D. Kase, of Danville, Pa., will build a 150-ton iron furnace and will want bids for its construction.*

Athens—Electric-light Plant.—The Manhattan Electric Light Co., of New York, have secured franchise to erect the electric-light plant previously mentioned.

Athens—Cotton Mills.—The Athens Mining & Manufacturing Co. are negotiating for the erection of two or more cotton mills of 5,000 spindles capacity each.

Athens—Flour Mill.—F. J. Long has changed his flour mill to the roller system.

Bristol—Railroad.—Surveying will begin shortly for the proposed railroad to Asheville, N. C., via Elizabethton, previously mentioned.

Bristol—Marble Quarries.—H. C. Remine is negotiating with a party for the development of his marble quarries.

Brownsville—Compress.—A. W. Brockway can give particulars of the cotton compress lately mentioned as to be built by a stock company. It will be owned by Memphis parties.

Chattanooga—Sand Crusher.—Martindale & Acosta contemplate erecting a crusher for crushing sandstone into sand. Capacity is to be about 8 or 10 car-loads daily.*

Chattanooga—Lumber Mill.—Robt. Morrison, J. B. Nicklin, Edward Scott and others have chartered the Morrison Lumber Co. for the manufacture and sale of lumber. Will succeed Morrison & Woodward.

Chattanooga—Sewering-pipe Works.—J. G. Rawlings, previously mentioned as to start sewer-pipe works, has, with M. A. Woodburn, of Chattanooga, and T. G. Bennett, W. A. Richard and others, of Jackson, Mich., formed the Lookout Sewer-pipe Co., to build the works. Capital stock is $100,000. They will erect building 60x364 feet, two and three stories, build ½ mile of railroad, &c., and are having machinery manufactured.

Chattanooga—Electric-light Plant.—The Tennessee Electric Light Co. has been chartered by Geo. B. Pennock, A. J. Wisdom, A. M. Johnson and others with a capital stock of $100,000.

Chattanooga—Foundry and Machine Shops.—The Wheeland Foundry & Machine Shops are being enlarged at a cost of $4,000. A new boiler and 35 horse-power engine are being put in, &c.

Chattanooga—Railroad.—The Chattanooga & Lookout Mountain Railroad Co. will change their terminal point in the city, entering via Craven.

Chattanooga—Stove Works.—Thomas A. Leveque, reported last week as organizing a company to start stove works, will soon commence building works. Will erect 60-inch cupola.*

Christmasville—Flour Mill.—The "Wheelers" have contracted for machinery for a 40-barrel roller flour mill.

Clarksville—Saw Mill.—J. T. Johnson will build a saw mill near the mouth of the Red river.

Collierville—Water Works.—The town authorities are considering the building of water works.

Columbia—Flour Mill.—McLemore & Bro. will rebuild their flour mill reported in this issue as burned.

Columbia—Variety Works.—The Columbia Variety Works will be enlarged.

Columbia—Oil Mill, &c.—The erection of a cotton-seed oil mill and fertilizer factory is contemplated.

Columbia—Ice Factory.—The Columbia Ice Co., previously mentioned as to enlarge their ice factory, have purchased a 15-ton ice machine.

Covington—Flour Mill and Elevator.—The Covington Flouring Mill & Elevator Co., previously mentioned, have contracted for their machinery. They will also build a large grain elevator, and have plans prepared.

Dyer—Flour Mill.—E. Keely will erect a roller flour mill and has ordered outfit of machinery.

Dyersburg—Flour Mill.—The Forked Deer Roller Mills have been enlarged.

Dyersburg—Compress.—A cotton compress will probably be built.

Dyersburg—Oil Mill.—W. D. Roberts & Co. are enlarging their oil mill and cotton gin.

Elmwood—Flour Mill.—The Chestnut Mound Roller Mill Co. will build a roller mill of 55 barrels daily capacity. Machinery is reported as ordered.

Elora—Planing Mill.—Plyant & Dickey are building a planing mill.

Erin—Stave Factory.—The Bauer Cooperage Co. may rebuild their stave factory and dry-kilns reported in this issue as burned. Loss was $12,000.

Fayetteville—Railroad.—The contract to build the Decatur, Chesapeake & New Orleans Railroad, mentioned last week, from Decatur, Ala., to Gallatin, Tenn., has been awarded to Beldan & McTighe, of New York city. They have started work.

Jackson—Sewerage System.—The city will have a sewerage system built at once. The mayor can give information.

Jellico—Brick-yard.—A brick-yard has been started by Africa & Co.

Jellico—Coal Mines, &c.—The American Coal & Iron Co., Limited, will probably soon commence developing their coal and iron lands. Capital stock is £150,000. James G. Givens, of Louisville, is managing director.

Jellico—Coal Mining, &c.—Frank Seward, reported last week as developing coal and mineral lands, owns with others coal, mineral and timber lands in Whitley county, Ky., near Jellico, which they contemplate developing soon.

Johnson City—Brick.—J. T. Wilder wants to contract for the making of from 1,000,000 to 2,000,000 brick this season. They will be used for buildings to be built by him.

Johnson City—Wood-working Factory.—The Johnson City Furniture Co. will shortly add the manufacture of building material.

Knoxville—Railroad.—The East Tennessee, Virginia & Georgia Railroad Co. are laying 69-pound steel rails on their road between Knoxville and Cleveland.

Knoxville—Electric-light Plant.—The University of Tennessee, reported last week as to spend $30,000 in improvements, will put in an incandescent electrict-light plant with capacity for 150 lights.

Lawrenceburg—Hub and Spoke Factory. The Lawrenceburg Manufacturing Co. has been incorporated for the manufacture of hubs, spokes, etc.

Limestone—Planing Mill.—Jno. B. Klepper will put additional machinery in his planing mill.

Maryville.—A Chicago party has, it is reported, purchased 10,000 acres of mineral land in the Chilhowee mountain range, about 8 miles from Maryville.

Maryville—Dummy Line.—A dummy line to Maple Springs is projected.

Memphis—Electric-light Plant.—Parties have, it is reported, purchased the right to use the Pennock battery electric light in Memphis from the Tennessee Electric Light Co (mentioned in this issue as incorporated at Chattanooga), for $10,000.

Memphis—Planing Mill.—M. H. Coover & Co. will add a band saw to their planing mill.

Memphis—Machine Shop.—Jno. E. Randle & Co. are building an addition to their machine shop 74x54 feet.

Memphis—Street Railroad.—The Citizens' Street Railway Co. will double-track part of their road.

Monroe County—Gold Mining.—Colorado parties are developing gold mines. They will put in machinery. Charles B. Ross, of Knoxville, can give information.

Morristown.—The authorized capital stock of the Iron Belt Development Co., reported last week as chartered, is $1,500,000.

Murfreesboro—Flour Mill.—T. J. Elam will build a full roller flour mill and has contracted for machinery.

Nashville—Railroad.—The St. Louis & Birmingham Railroad Co. has been chartered by E. W. Linn, C. A. Nye, E. R. Campbell and others.

Nashville.—The Tennessee Land & Timber Co. has been chartered by Thomas Gibson, Jno. T. Walker, N. N. Cox and others.

Oliver Springs—Natural Gas.—E A. Reed will probably drill another gas well.

Oliver Springs—Box Factory, &c.—E. A. Reed will shortly add machinery for the manufacture of boxes, handles, shingles, etc.

South Pittsburg—Pipe Works.—The South Pittsburg Pipe Works contemplate enlarging their works.

Wartburg—Lumber, &c—The Emory River Boom & Lumber Co, lately mentioned as chartered, has been organized with R. F. Wells, president; H. W. Saxton, Jr., vice-president, and E. D. Smith, secretary. The capital stock is $25,000.

Wauhatchie—Dynamite Works.—The Chattanooga Powder Co., lately mentioned as organized at Chattanooga, have purchased several acres of land and are erecting works with a daily capacity of 10,000 pounds.

TEXAS.

Brackettsville—Ice Factory.—M. P. Malone is building the ice factory lately mentioned.

Brenham—Corn Mill.—The Texas Standard Cotton Oil Co. will probably establish a roller corn mill.

Campbell—Canning Factory.—A canning factory is projected.

Campbell—Flour Mill, &c.—Wm. Chaffin & Co. have enlarged their mill, adding a corn mill and other machinery.

Camp Colorado—Cotton Gin.—Sackett & Bro. are considering the adding of a 60-saw gin to their ginnery.

Corsicana—Sewerage System.—The plans and specifications of D. A. Poyner for the sewerage system reported last week have been accepted and bids are wanted. The mayor can give particulars.

Crystal Falls—Flour Mill.—Black & Robertson contemplate starting a 25-barrel roller flour mill.

Dallas—Paper-bag Factory.—The Texas Paper Co., lately mentioned as chartered, will succeed Elias Keller & Co. in the manufacture of paper bags, &c.

Dallas—Bed and Mattress Factory—The Blakeney Manufacturing Co. has been incorporated with a capital stock of $50,000, to manufacture woven wire beds and cots, mattresses, &c. H. Blakeney, H. J. Blakeney and James Moroney are directors.

Dallas—Gin Factory.—Swan Bros. & Moore have added new wook-working machinery to their cotton-gin factory.

Dallas—Street Railway.—The Dallas City Suburban Street Railway Co. has been chartered with a capital stock of $100,000.

Denison—Street Railway.—A company

has applied for a franchise to build a dummy or an electric street railway.

Denison—Dummy Railroad.—The Denison Land & Investment Co. have bought the Denison Street Railroad mentioned last week, and will change to a dummy line.

Denison—Iron Furnace, Rolling Mill and Steel Plant.—Parties interested in the Denison & Washita Valley Railroad, now under construction, contemplate, it is stated, building the steel plant mentioned last week; also an iron furnace and rolling mill, to cost in all $2,500,000.

Denison — Cotton Mill. — The 50,000-spindle cotton mill reported last week will be built by a stock company which has been formed with a capital stock of $1,000,000. W. P. Rice, of Fort Payne, Ala., can give information.

Denison—Saw Mill.—S. A. Nye, of Fairfield, Me., contemplates building a saw mill and is making investigations.

Denison—Factories, &c.—The name of the $1,250,000 land and improvement company reported last week as formed is the Denison Land & Improvement Co. W. P. Rice, of Fort Payne, Ala., is president; M. H. French, Boston, Mass., vice-president, and P. E. Fairbanks, secretary and treasurer.

Eagle Ford—Corn Mill—Luck & Converston will build a 50 barrel corn mill. Roller machinery will be used.

Eagle Pass — Railroad.—The Southern Pacific Railroad Co. (office, San Francisco, Cal.) have purchased the Rio Grande & Eagle Pass Railroad, and will extend same from Laredo to Eagle Pass and from Laredo to Brownsville.

Ennis—Flour Mill.—The company lately mentioned as organized by J. Baldridge, J. W. Weatherford, P. Freeman and others to establish a flour mill has been incorporated as the Ennis Roller Mill Co. with a capital stock of $15,000.

Fort Worth—Cotton and Woolen Mill.—The Fort Worth Manufacturing Co. has been chartered, with a capital of $100,000, to manufacture cotton and woolen goods.

Galveston—Twine and Cordage Factory. The name of the $100,000 stock company reported lately as being organized by Arthur B. Homer and others to manufacture twine and cordage is the Galveston Rope & Twine Co. Mr. Homer is president.

Houston—Rolling Mill.—The Houston Rolling Mills are being enlarged and improved.

Laredo—Electric light Plant.—The Laredo Electric Light & Power Co. have increased their boiler capacity from 200 to 400 horse-power.

Marble Falls — Planing Mill. — Frank Raymond will move his planing mill from Austin to Marble Falls.

Navasota—Ice Factory.—C. L. Budges contemplates building an ice factory.

New Birmingham — Car Works — Car works will probably be built at some time in the future. The New Birmingham Iron & Land Co. can give information when anything is done.

New Birmingham—Bridge.—The East Fork Toll & Slough Bridge Co. has been chartered with a capital of $25,000 to build a bridge.

Paris—Street Railroad —The Paris Street Railway Co., lately mentioned as contemplating extending road, have commenced work on one mile of new road.

Putnam—Gin and Grist Mill.—A gin and grist mill will be built.

San Angelo—Water Works.—The city has contracted with J. L. Millspaugh for the furnishing of water for one year.

San Antonio—Brick and Tile Works.—Nelson Mackay and others, previously mentioned as organizing a company to start a pottery, have incorporated the Mackay Brick & Tile Co., with a capital stock of $75,000.

San Antonio—Brick Works.—The San Antonio Coal, Brick & Tile Co. has been chartered.

San Diego—Cotton Gin.—W. H. Parkman has ordered an 80-saw cotton gin to replace 30-saw gin.

San Diego—Cotton Gin.—Perey & Co. have contracted to erect a cotton gin to cost $6,000.

San Tomas—Coal Mines.—A new stock company has been organized by C. B. Wright, Jr., of Philadelphia, Pa., and others to develop the San Tomas coal mines heretofore worked by the Rio Grande & Eagle Pass Railroad Co. (office, Laredo)

Seneca—Logging Road.—R. W. Snelling & Co. have purchased an outfit for a logging road.

Sierra Blanca — Mining — Several new mines are being developed.

Sulphur Springs—Railroad.—The Sulphur Springs & Red River Railroad Co. has been organized by Geo. B. Boomer, J. A. Patnam, J. N. Boyd and others to build the narrow-guage railroad to Cooper, mentioned in last issue.

Sulphur Springs — Oil Mill. — Geo. B. Boomer has let contract for the construction of his cotton-seed oil mill mentioned in last issue.

Texarkana—Railroad.—The Texarkana & Daingerfield Railway Co. has been incorporated to build a railroad to Daingerfield. Capital is stock $150,000.

Wichita Falls—Flour Mill.—The Wichita Roller Mill Co. has been, it is reported, organized to build a $50,000 roller flour mill.

VIRGINIA.

Alexandria — Sorghum Mill. — A stock company is being worked up to build a sorghum mill.

Alexandria — Electric-light Plant.—The Schuyler Electric Co., of Middletown, Conn., have been awarded the contract to furnish the plant for the city previously mentioned. Contract price is $14,000.

Alexandria.—The National Dredging Co. has been organized with F. A. Reed, president, and Wm. Reardon, secretary. The capital stock is $50,000.

Alexandria—Brick Works —W. C. Morrison, of Washington, D. C., previously reported as purchasing the Columbia Brick Works, will shortly begin operating them.

Clifton Forge—Machine Shops.—The Newport News & Mississippi Valley Railroad Co. (office Richmond) have recently bought 1,600 acres of land, and will, it is said, build large machine shops.

Clifton Forge — Brick-yard.— A brick-yard will be started at Iron Gate, near Clifton Forge.

Clifton Forge—Rolling Mill.—The rolling mill lately reported as to be located at Iron Gate is to be removed from Pittsburgh, Pa. It will cost $150,000, and will employ 250 hands. The Iron Gate Land & Improvement Co. can give particulars.

Gladstone—Machine Shops, Roundhouse, &c.—The Richmond & Alleghany Railroad Co. (office, Richmond) are at work on their machine shops, roundhouse, &c., previously mentioned as to be built. L. C. Mabie is foreman.

Liberty—Woolen Mill —Wm. H. Ghee and others, lately mentioned as organizing a stock company to operate the Liberty Woolen Mill, have chartered the Liberty Woolen Manufacturing Co., with S. Griffin, president. The capital is to be not less than $20,000 nor more than $100,000.

Liberty — Electric-light Plant — W. T. Fitzpatrick and others have been appointed a committee to investigate the systems of electric lighting with the view to having such a plant erected for or by the city.

Lynchburg—Machine Shop.—W. B. Snead & Co. have the contract for the erection of the Lynchburg & Durham Railroad Co.'s machine shops, lately mentioned.

Lynchburg — Brick. — The Lynchburg Land Co. will shortly let contract for making 1,000,000 brick on their land.

Lynchburg — Bridges. — The Phœnix Bridge Co., of Philadelphia, Pa., and the Penn Bridge Co. have the contract for building the nine bridges for the Lynchburg & Durham Railroad.

Norfolk—Bed Factory.—A large factory for the manufacture of a patent metal folding bed will probably be started.

Norfolk.—A company has been organized, with M. Glennan as president, to establish an ocean resort near Virginia Beach.

Radford.—The West Radford Land & Improvement Co. has been organized with J. A. Welch, of Bramwell, W. Va., president, and Wm. Ingles, secretary. The capital is to be not less than $50,000 nor more than $500,000. The company has purchased 200 acres of land from Wm. Ingles for $45,000.

Richmond—Street Railway.—The Richmond City Railway Co. will relay 4 miles of their track with new rails, ties and stringers.

Richmond.—The Glenmore Iron Co. will organize on May 20. George Grant is interested.

Richmond—Stove Works.—The Southern Stove Works Co., reported last week as incorporated, will succeed Loth & Fleming, proprietors Southern Stove Works.

Richmond—Machine Works.—The Richmond Locomotive & Machine Works have been awarded the contract to furnish the engines and boilers and all other machinery for the war steamer Texas, now being built at the Norfolk navy-yard, at $634,500. They will have to enlarge their plant some.

Roanoke—Water Works.—The Roanoke Water Works will extend mains.

Roanoke — Implement Factory. — The Hawley Wheat Separator Co. has been organized with R. H. Day, president, and W. T. Watkins, secretary, for the manufacture of separators and other agricultural implements, and will shortly erect factory. The capital stock is $15,000.

Roanoke—Flour Mill.—J. M. Gambill & Co., reported in issue of April 27 as building 75,000-bushel grain elevator, will build also the roller flour and feed mill lately mentioned. The daily capacity will be 100 barrels of flour, 600 bushels of meal and 1,200 of feed. Contract for machinery has been let.

Roanoke—Street Railroad.—M. M. Rogers and others, who will build the railroad to and the hotel on Mill mountain, lately mentioned, have bought the Roanoke Street Railroad.

Roanoke—Ore Washer, &c.—The Virginia Steel Co., previously mentioned as enlarging their operations, are improving their narrow-guage railroad, and will build a trestle 100 feet long and an ore washer.

Saltville—Salt Well.—A new salt well has been sunk and a pump will be put in.

Staunton—Shoe Factory.—T. H. Sickles of Philadelphia, Pa., is prospecting with a view to starting a shoe factory.

Staunton — Electrical Railroad. — The Staunton Improvement Co., lately mentioned as to build a street railroad, will operate it by electric power. It will be 3 miles long.*

Tazewell C. H.—Railroad.—Contract to build the Clinch Valley extension of the Norfolk & Western Railroad (office, Roanoke) from end of Mills & Co.'s contract to Princess Flats, has been let to Sexton & Houston.

Warrenton—Water Works.—The report lately referred to that water works will be built is not confirmed.

West Point.—Charles Tyler, of Baltimore, has purchased 756 acres of land containing marl beds from the Tidewater Land & Lumber Co. for $40,000.

West Point—Snuff Factory.—A snuff factory is projected. Thomas B. Henley can give information if anything is done.

Wythe County.—The Cove Springs has been purchased by a Northern syndicate for $10,000.

WEST VIRGINIA.

Bluefield—Foundry and Machine Shop.—Bondurant, Crawford & Co., of Liberty, have contract for the erection of the foundry and machine shop, previously reported as to be started by W. A. Cather & Co. of Shenandoah, Pa.

Blue Sulphur Springs—Flour Mill.—A flour mill will probably be built by J. A. E. Harrah.

Boone County — Railroad.— The Davis Creek Railroad Co. contemplate extending their road to Joe's creek on Big Coal river.

Charlestown—Water Works —The Charlestown Water & Manufacturing Co., lately reported as to build water works, will lay about 2 miles of 6-inch and 4-inch pipe, erect stand-pipe 15x100 feet, &c. Capacity of pump is to be 200 gallons per minute.*

Frankford—Separator.—The Greenbrier Creamery Co., of Lewisburg, are erecting a separator.

Holliday's Cove — Oil and Gas — The Holliday's Cove Oil & Gas Co. has been organized by W. C. Galbreth, Frank McComb and others. The company has leased 1,075 acres of land and have let contract for the sinking of three wells. The capital stock is $40,000.

Huntington — Saw Mill — G. B. Martin has started a new saw and planing mill.

Lewisville — Ice-cream Factory. — The Greenbrier Creamery Co. will add an ice-cream factory to their works.*

Martinsburg—Flour Mill.—Alex. Parks, Jr., is enlarging his flour mill.

Morgantown—Water Works.—The water works previously mentioned as to be built by the Union Improvement Co. will be on the gravity system. The estimated cost is $30,000. T. M. Jackson is engineer.

New Cumberland—China Works.—The Chelsea China Co. are erecting works, four stories, 500x300 feet, capacity 8 kilns.

Organ Cave—Separator.—The Greenbrier Creamery Co., of Lewisburg, have erected a separator.

Piedmont—Coal Mine.—The Big Vein Coal Co. will probably begin the shipment of coal from their new mine on George's creek, previously mentioned, about June 1.

Thornton—Fire-brick Works.—John W. Mason, R. W. Kennedy, Charles Teters, J. C. Painter and W. J. Painter have incorporated a company to start the fire-brick works lately mentioned.

West Virginia — Oil and Gas.—Messrs. Bocking & Harding, of the Wheeling Oil & Gas Co., of Wheeling, have leased 3,000 acres of oil and gas land in Brooke county.

Wheeling—Iron Furnace.—The Belmont Nail Co. will erect a third hot-blast stove at their iron furnace and have let contract to Gordon, Strobel & Laureau, of Philadelphia, Pa.

Winifrede — Railroad.— The Winifrede Railroad Co. are surveying a proposed extension of their road from the mouth of Field's creek to Joe's creek. A tunnel will have to be built through the mountains.

Cotton Factory.—Daniel Robb, of Philadelphia, Pa., contemplates building a cotton factory at some point in the South.

Cotton Mill.—C. W. Coryl, of Chattanooga, Tenn., has been getting information about several cities in the South for Boston capitalists, who contemplate building one or more large cotton mills.

BURNED.

Brushy Run, W. Va.—The saw mill of S. J. Robinson; loss $4,000.

Chopin, La.—The saw mill of the Burton Lumber Co. and a hotel; loss $80,000.

Columbia, Tenn.—The flour mill of McLemore & Bro.; loss $30,000. Will be rebuilt.

Concord, N. C.—The grist and saw mills and cotton gin of Thomas Rogers; loss $3,000.

Charleston, S. C.—The printing and binding establishment of Lucas, Richardson & Co.; loss $25,000.

Empire, Ga.—The planing mill of the Empire Lumber Co. Will be rebuilt at once.

Erin, Tenn.—The works of the Bauer Cooperage Co.; loss $12,000. May be rebuilt.

Huntingdon, Tenn.—The stave factory of Mr. Dalton, 3½ miles from Huntingdon.

Frankfort, Ky.—The Feeble-minded Institute, including the mattress factory, shoe factory, carpenter shop, broom factory and engine-house. The loss is $150,000. Will be rebuilt.

French Creek, W. Va.—The mill of Marshall P. Wingrove.

Knoxville, Tenn.—The dry-kiln of Cooley Bros. & Co.

Kingsland, Ark.—The mills of the Southern Pine Lumber Co.; loss $8,000.

Mobile, Ala.—The barrel factory of W. A. Allen at One Mile Creek; loss $2,500.

Nameless, Ga.—The saw and grist mill of J R. Shepard.

New Orleans, La.—The wood and paper box factory of William Kern; loss $40,000.

Tennille, Ga.—The planing and grist mill and ginnery of Stephens Bros.; loss $5,000.

Building Notes.

Anniston, Ala.—The Southern Building & Loan Association has been organized with F. M. Hight, president; A. D. Smith, treasurer, and H. B. Rudisill, secretary.

Anniston, Ala.—R. D. Webb, of Birmingham, will erect a 30-foot front three-story brick and stone building. Miller & Butt are the architects.

Asheville, N. C.—J. M. Campbell has purchased a site on which to erect nine warehouses.

Attalla, Ala.—William Hood and J. A. May will erect a building for their new bank.

Attalla, Ala.—H. W. Pickens will receive bids for the erection of the Cumberland Presbyterian Church until June 1.

Athens, Tenn.—M. D. Cone will erect a two-story 44x100-foot building.

Austin, Texas.—John McDonald has been awarded the contract for completing the central portion of the State University building, lately mentioned.

Baltimore, Md.—The Madison Avenue Methodist Episcopal Church will be improved at cost of $8,000, and a hall will be built in the rear at a cost of $12,000. Chas. L. Carson is the architect.

Baltimore, Md.—St. Michael's German Catholic Church will be improved at a cost of $30,000. A new tower 175 feet high will be built. Baldwin & Pennington are the architects.

Baltimore, Md.—St. Stanilaus Polish Catholic Church have purchased a site 64x100 feet on which to erect a $20 000 church. Sigmund Stephan is chairman of the building committee.

Baltimore, Md.—A parish building will be erected by the Emmanuel P. E. Church. Rev. J. H. Eccleston can give particulars.

Baltimore, Md.—The First Polish-American Building Association has been chartered by Felix Broskowski, F. J. Rohan, Jan Czerski and others. The authorized capital stock is $400,000.

Baltimore, Md.—The First National Bank, previously mentioned as having plans prepared for their new bank building, have let contract for the granite front to the Westham Granite Co., of Richmond, Va. Old building on site is being razed. George A. Frederick is the architect.

Baltimore, Md.—The council committee on education will report in favor of the appropriation of $124 500 in addition to the amount lately mentioned for new school buildings.

Baltimore, Md.—F. Adams & Co. will build 9 two-story brick houses; Mary Myers, 4 two-story houses on Hoffman street and 3 on Wilmer alley; Virginia Paine, a four story building on Eutaw street; W. Bradford & Co., 31 two-story houses on Townsend and Chester streets; Harker & Allard, 4 three-story brick houses; Jno. Madden, 4 three-story houses on Patterson-Park avenue and 4 two-story houses in the rear; Charles Tyler, 4 two-story brick houses; John Hopkins Hospital, 4 three-story houses on Ann street, and B. F. Reed, 2 three-story stores.

Birmingham, Ala.—John J. Terry & Bros. will build a block of buildings with a theatre on the second floor.

Brenham, Texas.—The Texas Standard Cotton Oil Co. will erect a seedhouse.

Camden, Ark.—Bry & Bro. will erect a three-story building 80x120 feet, and C. K. Sither, a two-story building 55x90 feet.

Camden, Ark.—Hotel.—C. D. Gee, T. J. Moore and John H. Moore will erect a three-story building 100x110 feet. The upper part will be used as a hotel.

Charlotte, N. C.—A new church will be built at a cost of $10,000 by the Christian denomination.

Charlotte, N. C.—The Women's Christian Temperance Union will, it is said erect a $10,000 building.

Charlotte, N. C.—Richmond Pearson will build a $25,000 residence.

Columbus, Ga.—M. Joseph will remodel his building, putting in elevators, etc., at a cost of $8,000. F. J. Dudley is the architect.

Crewe, Va.—Ten houses will be built. Bondurant, Crawford & Co., of Liberty, have the contract.

Cumberland Gap, Tenn.—Hotel.—The American Association, Limited, A. A. Arthur, of Knoxville, general manager, contemplate the erection of a hotel of the old English style. McDonald Bros., of Louisville, Ky., have prepared plans.

Dallas, Tex.—Robert Gibson contemplates the erection of a natatorium to cost $17,000.

El Paso, Tex.—New bids for the superstructure of the United States courthouse and postoffice will be shortly called for, the bids previously made being rejected by the Secretary of Treasury, Washington, D. C.

Florence, S. C.—Silas Bounds, of Bennettsville, has been awarded the contract for building the courthouse previously reported at $14,600.

Florence, S. C.—Hotel.—It is stated that plans have been prepared for a hotel, and that a stock company will probably be formed to build it.

Fort Payne, Ala.—Rawles & Cook will erect a three-story brick and stone building.

Fort Payne, Ala.—The courthouse will be rebuilt.

Fort Worth, Texas.—E. E. Chase has let contract for building his $50,000 residence, previously mentioned, to Lowell, Miller & Hood.

Gainesville, Ga.—The Richmond & Danville Railroad Co. (office, Richmond, Va) will build a new depot. Plans are prepared.

Galveston, Texas—The Texas Standard Cotton Oil Co., of Brenham, contemplate the erection of a seedhouse.

Harrison, Ark.—Plans have been prepared for the $10,000 schoolhouse lately mentioned. It will be built during the summer.

Hot Springs, Ark.—Hotel.—Barnett & Record, of Minneapolis, Minn., contractors for the large hotel previously mentioned, have let contract for iron roofing same to Grygla & Selden, of Minneapolis, Minn. for $12,000.

Hubbard City, Texas.—The town will issue $10,000 of bonds to build a school. The mayor can give information.

Humboldt, Tenn.—Depot—The Louisville & Nashville Railroad Co. (office Louisville, Ky.) and the Mobile & Ohio Railroad Co. (office Mobile, Ala.) will build a union depot.

Ingomar, Miss.—C. Richardson will probably erect five business houses at a cost of $20,000.

Jacksonville, Ala.—The North Alabama Conference of the Methodist Episcopal Church will build an orphans' home.

Johnson City, Tenn.—Hotel.—A hotel will be built, it is reported. The Carnegie Land Co. can give information.

Johnson City, Tenn.—Hotel.—J T. Wilder will build a hotel and business block 140x150 feet, with elevators, etc., to cost $30,000, and wants bids for manufacturing from 1,000,000 to 2 000,000 brick. W. H. Floyd, of Chattanooga, is architect.

Knoxville, Tenn—Stephenson, Getsz & Co., contractors for the superstructure of the new jail, have commenced work.

Lewisburg, W. Va—Chas. L. Davis will receive bids until May 23 for the erection of a new county infirmary. Plans can be obtained from F. G. McFerrin, of Williamsburg.

Louisville, Ky.—Depot.-The Chesapeake, Ohio & Southwestern Railroad Co have approved plans for their union depot, lately reported as to be built at a cost of $150,000. and work will be started in a few days. J L. Frazier prepared plans.

Louisville, Ky.—The Public Warehouse Co. have bought a site on Main street 160x208 feet and will build a seven-story warehouse to cover the lot. Elevators will be put in.

Louisville, Ky.—The Kentucky National Bank will erect a seven-story office building to cost $150,000. Site is 43x165 feet. Plans will be wanted.

Maryville, Tenn.—A. K. Harper will build a two-story, 70x46-foot, warehouse.

Memphis, Tenn.—A site 100x228 feet has been purchased for the opera house previously mentioned. The cost will be $150,000. The New South Land Co. can give information.

Meridian, Miss.—A branch of the American Building & Loan Association, of Minneapolis, Minn., has been organized.

Miami, Texas.—Proposals, with plans and specifications, for building a courthouse and jail for Roberts county will be received until May 13 by L. K. Little. Cost is not to exceed $50,000.

Nacogdoches, Texas.—Mayer & Scmidt will erect five brick stores, with an opera-house above.

Nashville, Tenn.—M Saxe will erect a $20,000 residence; Wm. Hardcastle a $7 000 dwelling; H. Manney a $6,000 dwelling; H. H Burton a $6,000 dwelling, and Mrs. Greener six $3,000 dwellings.

Nashville, Tenn.—Mrs. Thompson will erect a five-story office building to cost $25 000, with freight and passenger elevators, etc. Geo. W. Thompson is the architect.

New Birmingham, Texas.—Vining & Holcomb will erect a $7,000 store building.

Newport, Ark.—E. L. Watson has let contract to the Hall Safe & Lock Co. for the construction of a safe deposit vault to cost $6 000.

Norfolk, Va.—The Mutual Building Association has been chartered, with W. N. Hannum, president; Adam Tredwell, vice-president, and A. S. J. Gammon, secretary. The capital stock is to be not less than $5,000.

Palatka, Fla.—Depot.—The Jacksonville, Tampa & Key West Railroad Co. (office, Jacksonville) will build a depot.

Piedmont, Ala.—Hotel.—Col. Harris is building the hotel lately mentioned.

Pulaski City, Va.—W. C. Kelly has received contract to build the church for the Baptists. It will be 40x72 feet.

Roanoke, Va.—The Roanoke Building & Investment Co. will build 15 dwellings at once.

Roanoke, Va.—W. P. and C. A. Moomaw will erect a building, three stories 25x100 feet.

Rockmart, Ga.—Depot.—The East Tennessee, Virginia & Georgia Railroad Co. (office, Knoxville, Tenn.) will build a new depot.

Savannah, Ga.—The Georgia Hussars are raising a fund to build a $20,000 arsenal.

Sheffield, Ala.—The Knights of Pythias will erect a building to cost about $30,000.

Somerset, Ky.—A new Methodist Episcopal church will be built shortly.

Sylacauga, Ala.—The Farmers' Alliance have incorporated a warehouse company with a capital of $20,000.

Troy, Ala.—A branch of the American Building & Loan Association, of Minneapolis, Minn., has been chartered by James Folmar, E. B. Wilkerson, P. H. Baker and others.

Vicksburg, Miss.—Hotels.—The Vicksburg Hotel Co. have purchased a site 195x140 feet for their proposed hotel, previously mentioned. The Pacific and Washington hotels will probably be enlarged and improved.

Vicksburg, Miss.—The Louisville, New Orleans & Texas Railroad Co. (office Memphis, Tenn.), mentioned in last issue as to build a roundhouse, contemplate the erection of a new depot.

Washington, D. C.—William Hurdeman will build two brick dwellings to cost $7,500; Henry Lane, two to cost $6,000; Oliver Cox, 11 houses in Navy court; D. A. Snow, 4 three-story dwellings to cost $9,000; Bishop Hurst, a 25x73 foot residence to cost $17,000; W. Z. Partellow, 6 houses in Le Droit Park to cost $25,000; John W. Phillips, 22 houses in Northeast Washington; P. J. McIntire, a $10,000 residence; Jas. Nolan, 3 houses to cost $10,000; Louis Emmert, 4 dwellings to cost $45,000—F. F. Schneider is the architect; Dr. J. L. M. Curry, an $18,000 dwelling; J. W. Hollyday, a $12,000 dwelling; Senator Sherman, 24 cottages in East Washington; William Valentine, 2 houses to cost $12,000; John Miller, 6 two story dwellings to cost $18,000; Charles King, a $5 500 dwelling; Robert Proctor, 3 houses to cost $10 000; J. W. Deval, 4 brick dwellings to cost $6 000; J. R. Brooks, 5 dwellings to cost $13,000; Jones & Co., 9 dwellings to cost $18,000; Thomas S. Tucker, 7 dwellings to cost $25,000; N. P. Haller, 4 to cost $12 000; Hill & Johnson are building a 75x25-foot business house; F. W. Piling has prepared plans for 12 five-room dwellings, and Geo. M Oyster will build 3 three story houses.

Washington, D. C.—Senator Hearst will improve his residence at a cost of $15 000.

Washington, D. C.—The nine-story building of the Fidelity Trust Co., of Philadelphia, previously reported, will be 23x103 feet, with passenger and freight elevators, electric bells, steam heat, etc. The cost will be about $100,000. A. P. Clark is the architect.

Washington, D. C.—J F. Carpenter will build a $35,000 residence, with steam heat and other improvements. Mr. Wendell is the architect.

Wytheville, Va.—A building & loan association has been organized with C. W. Pike, president; Frank St. Clair, vice-president, and H. J. Heuser, secretary.

MACHINERY WANTED.

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Bagging Machinery.—C. H. Simmons, Munford, Ala., wants prices on 42-inch looms for making cotton bagging.

Bagging Machinery—Hansen & Smith, Wilmington, N. C., want to buy machinery for manufacturing cotton and jute bagging.

Bagging Machinery.—The Farmers' Alliance, Talladega, Ala., will want machinery for a cotton bagging or pine fibre bagging factory. Address G. T. McEldery, business agent.

Bobbin Machinery.—John W. Davis, Salisbury, N. C., wants machinery for manufacturing bobbins complete.

Bridges.—The East & West Railroad Co., Cross Plains, Ala., will shortly want bids for building several iron bridges.

Buggy Machinery.—The Carolina Buggy Co., Yorkville, S. C., want information as to machinery necessary for a buggy factory with capacity to make 5 buggies daily.

Canning Factory.—G. H. Muse, Keyser, N. C., wants catalogues of canning machinery.

Canning machinery will be wanted by the Hendersonville Manufacturing Co., Hendersonville, N. C.

Cotton Factory.—The Farmers' Alliance, Talladega, Ala., will want machinery for a cotton factory. Address G. T. McEldery, business agent.

Cotton Machinery.—Definite information as to cost of machinery for the manufacture of cotton yarns and cotton rope, capacity about 1,000 pounds cotton daily, is wanted by W. G. Selleck, Macon, Miss.

Cotton Machinery.—The Clover Manufacturing Co., Clover, S. C., will want outfit of machinery for factory of small capacity.

Cotton Machinery.—W. L. & E. C. Holt, Burlington, N. C., want cards, spindles, &c., to enlarge cotton mill.

Electric Motor.—The Staunton Improvement Co., Staunton, Va., want electric motor for street railroad 3 miles long.

Elevators, Engine and Boiler, &c.—J. G. Hynds & Co., Gainesville, Ga., want two elevators, engine and boiler, 30 horse-power, piping for heating, office railing, brass or other metal, &c., for new shoe factory building.

Elevator.—Smith & Scott, Paducah, Ky., want elevator for a three-story tobacco factory.

Engines, Pumps, &c.—The Fort Payne Furnace Co., Fort Payne, Ala., want blast engines, hoist engines, pumps, 16 2-flue boilers 48 inches by 26 feet 6 inches, feed-water heaters, purifiers, &c.

Furniture, &c.—W. A. Bramlette, Bonham, Texas, will receive proposals until May 16 for furnishing seats for the district and county courtrooms, tables, desks, etc., for the various county offices and for roller shelves and file cases for the district and county clerks' offices.

Gin Machinery.—D. H. Houser, Myrtle, Ga., will want machinery to rebuild his burned gin.

Hoists and Concentrators.—The Magnetic Iron & Steel Ore Co., Blacksburg, S. C., will want hoists and concentrating machinery soon.

Ice Cream Machinery.—The Greenbrier Creamery Co., Lewisburg, W. Va., want machinery for manufacturing ice cream.

Iron Furnace.—J. D. Kase, Danville, Pa., will want bids for building at Athens, Tenn., an iron furnace 70x16 feet. It is to have all modern improvements.

Laundry Machinery.—Leloup & Lee, 119½ Nineteenth street, Birmingham, Ala., want catalogues and price-lists of steam laundry machinery.

Lock Machinery.—Lieut.-Col. Wm. E. Merrill, U. S. A., Cincinnati, Ohio, will receive proposals until June 6 for furnishing and delivering the operating machinery for lock No. 8 in Monongahela river, W. Va. Approximate weights: wrought iron, 17,021 lbs; cast iron, 35,618 lbs.; steel, 786 lbs.

Machinery.—Sanford & Bottomly, Brookfield, Mo., contemplate moving their works for manufacturing agricultural implements to the South, and will want considerable new machinery.

Rails, Locomotives, Cars, &c.—J. D. Kase, Danville, Pa., will shortly want 200 tons 25 lb. rails, fish plates, spikes, narrow-gauge locomotive and mine cars, to be delivered at Chattanooga, Tenn.

Railroad Equipments.—The Wilson Lumber Co., Wilson, Ala., want 100 tons 16 lb. steel rails, one 9 ton locomotive and 6 logging cars. They prefer narrow gauge.

Rails, Cars and Engine.—M. Tucker, secretary Rutledge & Julian Railroad, Rutledge, Ala., wants rails, locomotive, passenger car, freight cars, &c., for a 3-mile railroad.

Rolling Mill.—Brown & Train, Fort Payne, Ala., want full outfit of machinery for rolling mill.

Sand Crusher.—Martindale & Acosta, Chattanooga, Tenn., want to purchase a crusher for crushing sandstone with a daily capacity of 8 to 10 car-loads.

Saw Mill, &c.—Peter Hutcherson, Sandy Ridge, N. C., wants saw mill, saws, belts and fixtures to rebuild burned saw mill and tobacco-box factory.

Shoe Machinery.—J. G. Hynds & Co., Gainesville, Ga., will shortly want more shoe machinery.

Shuttle-block machinery is wanted by A. W. E. Capel, Columbia Factory, N. C.

Staves and Barrel Machinery.—The Hendersonville Manufacturing Co., Hendersonville, N. C., will want machinery for manufacturing staves, barrels, headings, &c.

Steam and Electric Power, &c.—Charles A. Webber, De Land, Fla., wants information about steam and electric power for railroads; also prices of rails, &c.

Stove Works.—T. A. Leveque, Chattanooga, Tenn., wants 40 horse-power engine and boiler, No. 7 Sturtevant blower, 60-inch cupola, fire-brick for same, 1 small and 1 large gear mill for cleaning castings, grinders, emery wheel, &c., for stove works.

Tobacco Machinery.—Smith & Scott, Paducah, Ky., want machinery, except power, for tobacco factory.

Water-wheel.—J. E. Thompson, Manchester, Tenn., wants a turbine water-wheel.

Water Works.—The Charlestown Water & Manufacturing Co., Charlestown, W. Va., will receive proposals until May 15 for furnishing about 8 500 feet of 6-inch cast iron water pipe weighing 28 lbs per foot, about 1,500 feet 4-inch cast iron water pipe weighing 18 lbs. per foot, 6 6-inch gates and 4 4-inch gates 1½ tons of special castings, one duplex pump with gearing for connection with an overshot wheel and with capacity of 200 gallons per minute, stand-pipe 15x100 feet, &c.

Water Works.—The Kissimmee Ice Factory Co., Kissimmee, Fla., want estimates on stand-pipe, pump and water mains to supply Kissimmee with water, city to take 40 hydrants at start. Population is 2 000.

Water Works Machinery.—J. E. Thompson, Manchester, Tenn., will want iron pipes and pump for water works.

Window Shades and Shade Cloths.—G. D. Bumpas, Tyler, Texas, wants the address of manufacturers of window shades and shade cloths.

Wood-working Machinery.—J. M. Towne & Co., Kissimmee, Fla., want some wood-working machinery.

Wooden and Tin Box Machinery.—Fredk. Lehrkind, Mobile, Ala., will soon want machinery for manufacturing wooden axle-grease boxes and tin boxes.

SPOKE AND HANDLE FACTORY—HENDERSONVILLE, N. C., April 29, 1889.—We organized the Hendersonville Manufacturing Co. and will start work in 60 days. We will manufacture spokes and handles of all kinds and coiled barrel hoops, and wish soon to add stave, heading, tiercing, and, in fact, barrel manufacturing in general, and also canning factory. Will need the machinery for added parts.

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Boiler Plate and Tank Iron, Lap-Welded Pipe and Boiler Tubes, Boiler and Sheet Iron Rivets, Steam Brass Goods and Engine Trimmings, Iron Valves and Fittings. Pipe Workers' and Machinists' Tools. Wood and Iron Pulleys. Belting, Hose and Packing. SEWER PIPE, FIRE BRICK and CLAY.

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PLANS AND SPECIFICATIONS FURNISHED FOR THE CONSTRUCTION, EQUIPMENT AND ORGANIZATION OF COTTON AND WOOLEN MILLS.

Foreign Exchange Quotations.

ALEXANDER BROWN & SONS.
BALTIMORE, May 8, 1889.

Sterling.—			
Selling.			
60 days.....	487½	Commercial..486	to 486½
3 days.....	489¼		
Francs.—			
Selling.			
60 days.....	516¼	Commercial..519⅜	to
3 days.....	513		
Reichmarks.—			
Commercial.....		91⅛@95	
Guilders.—			
Commercial.....		39⅞@40⅛	

Baltimore Stock Exchange Quotations.

Reported by ALEXANDER BROWN & SONS, Bankers, Baltimore.

BALTIMORE, May 8, 1889.

	BID.	ASKED.
Virginia 3-4-5 10-40's.....	35¾	36¼
Virginia 3's, new.....	66½	67½
Virginia Consol Coupons, N. T.....	17¾	..
Virginia 10-40 Coupons, N. T.....	27	30
N. Carolina 4's.....	96	..
Norfolk Water 8's, C.....	128	128¾
Atlanta & Charlotte.....	90¼	91
Charlotte, Col. & Aug.....	..	56
Va. & Tenn. sd 5's.....	106	.
Wilmington & Weldon gold, 7's.....	117	..
Wil., Col. & Aug. 6's.....	119¾	..
Atlanta & Char. 1st 7's.....	122½	123
Atlanta & Char. income 6's.....	103	104½
Col. & Green. 1st, 6's.....	103¾	104
Col. & Green, sd, 6's.....	79¾	80½
Va. Midland, 1st, 6's.....	118	..
Va. Midland, sd, 6's.....	117	
Va. Midland, 3d, 5-6.....	..	110
Va. Midland, 4th, 3-4-5.....	..	90
Va. Midland. 5th, 5's.....	99	100
Va. Midland Income 6's.....	88	91
Char., C. & Aug. sd, 7's.....	115	..
West Va. Central 1st, 6's.....	109	110
Ga. Pacific 1st, 6's.....	113	..
Ga. Pacific sd.....	82½	83
Cape Fear & Y. Valley 6's, A.....	..	108
Cape Fear & Y. Valley 6's, B.....	101	..

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War Declared Against Southern Iron Makers.

Referring to the heavy cut in prices of iron just made by the Thomas Iron Co. with a view to enabling them to kill off Southern competition, the N. Y. Commercial Bulletin says:

Business in American pig has been practically at a standstill, the trade having not as yet had time to determine the full effect of the reduction of $1.50 made in the price of Thomas foundry iron. * * Whether competition will continue as active as it was under the $18 rate, or be cut down by the fact of loss in operating furnaces under present extremely low values remains to be seen. The one fact standing out very plainly is that the market is demoralized; a result of overproduction, more particularly in the South, where very little consideration for the future is entertained.

It would seem to be about time to stop this silly talk about Southern iron makers being reckless in their business operations. They have, says the Bulletin, "no consideration for the future." If this refers to their consideration for Northern iron makers, it may possibly be true, but as to their own future, financially, they have very great consideration. Southern iron makers are not the fools that one-half of the papers of the North seem to think. They are business men who have demonstrated that they are the equals of any other manufacturers of which America can boast. They are running their furnaces to make money, and they are making money. Pennsylvan a iron makers may attempt to deny the possibility of the South's supremacy in this business, but they only show their own foolishness in doing so. Why did Samuel Thomas, of the Thomas Iron Co., go South a year or two ago and invest $1,000,000 in developing iron property, building a furnace, &c.? and why, after getting one furnace into operation, is he to day building another? Why has J. D. Kase, an iron maker of Danville, Pa., just signed a contract to build a 150-ton furnace at Athens, Tenn.? Why has Enoch Ensley, for 12 or 15 years one of the leading iron makers of the South, in which business he has made a fortune, just purchased another new furnace at Sheffield? Why are the Nobles and Tylers and their friends, whose financial success in iron-making at Anniston is known throughout the country, now laying the foundation of another furnace near that town, while two are nearing completion and plans being made by one of the Nobles for still another? Why are the leading iron and steel makers of England building 4 furnaces at Middlesborough, Ky., and the Crozer Iron & Steel Co., composed of Pennsylvania men, duplicating their present plant at Roanoke, Va.? These are but a few of many new furnaces now going up in the South, by men of long experience either in the iron trade of the South or in the North. They are not theorists. They are practical men who have demonstrated by years of work what they can accomplish in iron-making. If the Thomas Iron Co. has entered the ring for a fight to drive out Southern iron it will be a sad day for somebody when the fight is over, and the sadness will not be on the part of the Southern iron makers.

FORT PAYNE.

The Latest Projects in the Newest "Magic City" of Alabama.

[Special correspondence MANUFACTURERS' RECORD.]

FORT PAYNE, ALA., May 3, 1889

The Fort Payne Furnace Company have completed designs and specifications for the erection of their blast furnace 11 feet, 6 inches x 55 feet. The plan is so devised as to admit of the erection of a second stack without disturbing the situation of the first's boiler and engine. The company is now receiving bids for the construction of a section of the "plant" to be built under the direction of Mr J. H. Mullin, the designer, who ranks high as a mechanical and mining engineer, and who superintended the building of the Ohio & Western Coal & Iron Co.'s twin furnaces in Ohio. The Fort Payne Rolling Mill Company will supplement this plant with a 50-ton rolling mill, and there will also be erected two hundred coke ovens.

As for the matter of supplies of material for these works, it is enough to say that within the distance of a mile are to be found beds of red hematite iron ore of high quality, rich in lime, which gives 50 per cent, it is said, of metallic iron, together with exhaustless stores of limestone. Nearby are two seams of the best quality of coking coal, which compares to advantage with the coals of Cripple Creek, Va., and Connellsville, Pa. These several "plants" will be pushed to early completion.

In addition it may be noted that the Fort Payne Land & Enterprise Co. was organized this week with Fred. S. Ferguson, of Birmingham, Ala, president, and E. W. Godfrey, of Fort Payne, secretary and treasurer, with a number of Northern and Southern stockholders. The company has a capital stock of $200 000, has bought a large tract of land, and will at once lay out the same in building lots. They will also proceed to erect dummy lines and make other improvements, so as to make their purchase a desirable addition to the town of Fort Payne.

What promises to give a big boom to this, the latest "Magic City" of Alabama, is the coming excursion of over 1,000 New England capitalists engineered by Col. W. P. Rice, late of Kansas City, who conducted the recent tour of Northern investors to Denison, Texas

The Fort Payne Coal & Iron Co. have made arrangements for the construction of their railway line, and will at once employ a large force at work and push the road to early completion. The proposed new hotel here will be a model of novel architecture and ornamental finish. The newly projected sanitarium is making rapid progress, and the main street of the town is being thoroughly macadamized. The railroad business here for the past month shows an increase of 50 per cent. over the receipts for the previous month. Fort Payne is on a boom beyond doubt.

TO BUILD RAILROAD—ST. AUGUSTINE, FLA., May 2, 1889.—The St. Augustine & North Beach Railroad Co. was organized on April 10th, a sufficient amount of stock being subscribed to build the road. A chief engineer was elected, and he is now making the surveys, estimates, etc., and if his report is satisfactory the road will be built at once. It will probably be a dummy line.

VIRGIL POWERS.

Signs of the Times.

There are two very noticeable facts in connection with the progress which the South is now making, worthy of thoughtful attention. One is the heavy flow of money Southward, and the deep interest which Northern capitalists are taking in Southern investments, as shown by the hundreds who are visiting this section—an excursion from New England, of bankers and others, to the number of about 1,000 now being made up to start next week for Alabama and Texas; and the other is the removal of Northern factories and Northern manufacturers to the South. Last week the MANUFACTURERS' RECORD called attention to the removal of a cotton mill from New England to South Carolina, and of two mills from Philadelphia to Florence, which had already secured the transfer of a $300,000 hardware plant from New Jersey. Now comes the removal of a $150,000 rolling mill from Pennsylvania to Virginia; large foundry and machine shops from Pennsylvania to Bluefield, W. Va.; the contract for 150-ton furnace at Athens, Tenn. by a well-known Pennsylvania iron maker, and many smaller enterprises, and many other larger ones previously reported. These are signs of the times which the wayfaring man can read without much trouble. The cotton-mill building activity mentioned last week goes steadily on. The 50,000-spindle mill reported to be built at Denison, Texas, will have a capital of $1,000,000; Huntsville, Ala., is to have a 40,000 spindle mill; a $100,000 cotton mill is to be built at Clover, S. C., and one at Nebo City, N. C., while several old mills are making extensive enlargements. Florence, Ala., secures a $30,000 tobacco factory and a large lumbering enterprise. There are rumors, with some foundation, of steel works, rolling mill, &c., at Denison, Texas, at a cost of $2.500,000. Morristown, Tenn., has organized a $1,500,000 company to develop mineral lands; Fort Payne, Ala., a $200,000 company to build dummy line, &c.; at Clifton Forge, Va, the Newport News & Mississippi Valley Railroad Co., formerly the Chesapeake & Ohio, have, it is reported, purchased 1,600 acres of land and will build extensive shops. These are but a few of the new enterprises reported for the week. Their wide diversity in character and extent of country represented gives a fair indication of the great movement which the whole South is making.

New Southern Banks.

Athens, Ala.—A savings bank is being organized by John T. Tanner.

Athens, Ala —The Bank of Athens has been organized with John H. Davis as president and C. E. Frost, cashier. Capital is $50 000.

Attalla, Ala.—William Hood and J. A. May, of Birmingham, are preparing to start a bank.

Carthage, N. C.—A bank is reported to be started soon

Clarksville, Tenn.—The Bank of Clarksville has been chartered by R. C. Wright, H. Ellis, M. L. Wright, R. M. Potts and D. B. Wright. It is a State bank.

Fort Payne, Ala.—The First National Bank has been organized with W. P. Rice as president; A. W. Train, vice-president, and G. E. Lathrop, cashier. Capital is $50,000.

Guntersville, Ala. — The Guntersville Bank will, it is said, declare a 25 per cent. dividend for its first year.

Henrietta, Texas.—The capital stock of the Farmers' National Bank, lately mentioned as organized, will be $50,000. John G. James, of Wichita Falls, is interested.

Lynchburg, Tenn.—The paid-up capital stock of the Farmers' Bank, lately mentioned as organized with W. W. Holt as president, is $20,000.

New Orleans, La.—The Metropolitan Bank have added a savings bank department.

Perry, Ga.—The Perry Loan & Savings Bank is to be incorporated at next session of State legislature.

South Pittsburg, Tenn.—Middleton & Fitzgerald are organizing a savings bank.

Low Prices for Iron and Steel.

The cut in iron prices by the Thomas Iron Co., of $1.50 a ton, brings prices down to an extremely low figure, and in connection with this, the sale of 15,000 tons of steel rails at $24.70, the lowest price ever reached in this country, is of interest. "The bottom has probably been reached" is an old saying, which, in this case, is doubtless true. The South will come out on top of course.

COMPRESS AND COTTON OIL MILL—MACHEN, GA., April 5, 1889.—A compress will be built by Roush & Fitch, of Petersburg, Ind., who have also a compress at Hawkinsville, Ga. Cotton-seed oil mills are being built by New York parties. P.

PROPOSALS.

PROPOSALS for erecting a system of water works at Johnson City, Tenn., will be received until 23d May, 1889. Address F. P. BAXTER, Mayor, r J. A. C. LUSK, Recorder.

WANTED at Troy, Ala., a first-class tanner to take charge of a tan yard. Also, a superintendent for a shoe factory, making peg work. Good references required. Southern men preferred. Address TROY SHOE FACTORY, M. W. Wright, Secretary.

WANTED!

By a responsible house the agency for the sale of Cotton Gins, Presses, Reapers and Mowers, Engines, Mills, Wagons, Stoves, and other farm machinery. References furnished if desired. Address, with full particulars as to rates of freight, &c.,

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	BID.	ASKED.
North Carolina 4's, 1910	95¾	96¼
North Carolina 6's, 1919	123	..
Virginia New 3's, 1932	66¼	66⅞
Lynchburg, Va., 5's, 1915	104	..
Petersburg, Va., 5's, 1918	104	..
Norfolk, Va., 5's, 1911	102	..
Richmond, Va, 5's, 1922	112½	..
Atlanta & Charlotte Ry., 1st 7's, 1907	122½	123¾
Atlanta & Charlotte Gt'd 6's, 1900	103	104
Char., Col. & Aug. R. R. Gen. 6's, 1931	105¼	105½
Georgia Pacific Ry. 1st 6's, 1922	112½	113¼
Georgia Pacific 2d 5's, 1923	82¼	83¼
Petersburg Railroad Class A 5's, 1926	107½	..
Petersburg Railroad Class B 6's, 1926	104¾	104¾
Rich. & Danville R. R. Gold 6's, 1915	118	..
West. N. Car. R. R. Gen. 6's, 1914	89	91
Northwestern N. Car. R. R. 1st 6's	99	..
Atlanta & Charlotte R. R. Stock	91½	92
North Carolina Railroad Stock	109	..
R., F.&Pot. R.R. Div'd Obligations	114	114½
Virginia Midland Railway Stock	..	..
Sloss Iron & Steel Co. Stock	..	46
Sloss Iron & Steel Co. 1st 6's	94¾	95¼
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Eastern Lumber Markets.

[Special correspondence MANUFACTURERS' RECORD.]

NEW YORK, May 7, 1889.

It is an ill wind that blows no one any good. The Centennial utilized four or five million feet of lumber. Our business men are once more back to work. A great deal of stuff has been arriving by vessel from Southern ports, all the way from Wilmington to Mobile. A general stocking up has been quietly going on during the past thirty days. Here and there a dealer who has loaded up a little too heavily is found shading prices in order to make money to pay bills If there is to be any weakness in this market this year it will be due to instances of this sort. At the outset building operations promise to be entered upon to a large extent, and a good many people who last year promised to do a good deal of business, this year bought heavily on time, and will find it necessary to sell a good deal of lumber for spot cash in order to meet their obligations This may or may not bring out a spot reduction. There is a good deal of "paper" out that will force sales through should there be any inclination to hold back. The stronger concerns that have been anxious to maintain prices at the high point of April 1st are a little concerned lest the prices will go down if this is done. This would affect yellow pine, North Carolina sap and some few hardwoods It is not likely to affect hemlock or white pine, because the supplies of these woods are not very heavy. Those who count upon doing an immense business in white pine have their arrangements made for stuffs they will want. The Michigan people are not so urgent for prompt settlements as Southern manufacturers They are willing to ship timber on time but they are very careful as to whom they deal with, more so than our Southern friends. A yardman here, in order to deal in white pine on a large scale, must have a good reputation as well as something to back it in the way of a bank account Consequently white pine business is restricted to fewer hands according to amount sold than yellow pine. A good many dealers handle yellow pine as an annex to their business, and hence the competition in yellow pine has been increasing and will increase from year to year. The distribution among dealers and purchasers is very good. We cannot note any change in quotations except where a very large trade is wanted, but transactions of this character are few and far between. The exporters are still complaining about high ocean freight rates. The foreign markets are in no need of stuff, and very few are willing to take the risk of shipping on consignment. A good many inquiries have been received from Southern parties relative to the export trade, but so far the exporters have extended very little encouragement.

A disposition is shown among a good many buyers of lumber to substitute something cheaper for something dearer. The experiments made in this direction cost more than the profit comes to, still there are dealers in the lumber trade trying for something new. Red birch has been spoken of in place of cherry, but only a few have used it.

There is a scarcity in poplar. Just why there is we cannot answer. A great deal of hemlock ordered two months ago is just arriving, but we are told that future supplies will not be so readily had. Still, as the season progresses, we get more poplar from quarters where we did not expect it. Car-load lots will probably advance. Several dealers have put up quotations already. Prices for 1½-inch stuff $27; up to 4 inches $33 to $34 A good deal is selling at $32 Good beveled siding $12; selects $14; ¼-inch stock $34 to $35; flooring selects ⅞ inch $24.75; squares $31 to $32. The salesmen whose opinions are generally reliable report that during the past week or so they have done less than usual in hardwoods Perhaps the proper way to put it is, that they have not sold as much as they had counted on. The hardwood and pine manufacturers are threatened by the new classification. Unless it is reversed they will suffer. In fact, business under it is impossible, and the railway men will no doubt make a modification in the new rule. The receipts of hemlock in this market are large but nearly all of it has been contracted for before. The Pennsylvania dealers have held together so far this year, but visitors from Williamsport report a fraternity of feeling there that if maintained will certainly keep prices up. Advices from Boston show that there is a little improvement, especially among the furniture manufacturing interests. There has been a demand for walnut an inch wide. Cherry is scarce. Quotations are $38 to $45, according to thickness, ranging from 1¼ inches to 4 inches. There is also a good demand for all kinds of plain and quartered oak in New England markets. There has been a good deal of two inch poplar going East. An abundant supply of all thicknesses of maple is in this and other markets. Prices range from $24 to $28, and two to four inch stock is held at $30. One inch poplar is selling at $34: up to ten inches, ash $38; oak $37 to $38. Quarter sawed $48; inch cherry $80; strips $45; culls $18; clear cypress $32; clear maple $31; cottonwood $20; sycamore $24 to $25; good black walnut is held at $70 to $80 for 18 to $24 inches These figures show very little difference in those noted a month ago, and taking everything into account we may say that prices have neither advanced nor declined. Buyers awhile ago were frightened lest hardwoods would follow poplar, but it has led to a large supply and hence a reaction. Dry cypress stock is sure to sell well here.

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1 15 ton Double Ender Locomotive 56½ in. gauge.
1 25 " " " " " "
1 American Type Locomotive, 35 tons "
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10 Coal Cars, 18 tons capacity, 56½ in. "
100 Flat " 12 " " 56½ in. "
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1 Combination Car, 56½ in. "
110 Construction Cars, side dump, 38 in. "
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12 " " " " 20 in. "
2 Steam Shovels—Otis.

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NEW YORK EQUIPMENT CO.

10 Wall St., New York.

Have for Sale for Cash or Lease on Easy Terms on the **CAR TRUST PLAN,**

LOCOMOTIVES,

PASSENGER AND FREIGHT CARS, ETC.

Of both Standard and Narrow Gauge, to Railroad Companies, Logging Railroads, Mining Companies, Contractors, Etc.

We have just bought the entire Narrow Gauge (3 ft.) Equipment of the Cleveland & Canton R. R. Co., consisting of 23 Locomotives (Passenger, Mogul and Consolidated type), 17 Passenger Cars, 532 Freight Cars. It is the Best lot of 3 ft. Gauge Equipment ever put upon the market; is in the best order, and is offered at extremely low prices and easy terms.

Send for Circulars. Correspondence Solicited.

FOR SALE.

1 System of Carpet Warp and Twine Machinery, capacity 7,500 lbs. per week.
1 Kitson Opener.
1 Kitson 2 Beater Lapper.
12 full Roller Gambrill Cards, 36 in.
3 Whitin Rai. Heads.
2 Heads, drawing 10 del. each.
2 Lowel Slubbers, 32 spindles each, 12x6 in.
2 Fine Speeders, 7x3¾, 72 spindles each.
11 Spinning Frames, 1,368 spindles; 2 in. ring, 6 in. travers, Rabeth spindle.
5 Twisters, 60 spindles each, 3½x5 in.
2 72 in. Reels.
2 Ball Winders, 12 and 16 spindles.
1 80 spindle, 6x4½ travers, Spooler.
Presses, Spools, Bobbins, Cans, Belts, Shafting, all complete to run.
Will sell at a bargain.

L. GODFREY & CO.

PROVIDENCE, R. I.

FOR SALE.

Soap, Candle & Oil Works, Plant and Business.

Established 1848.

Warehouse, Houses and Outfit Complete, all in good repair.

A Fine Opportunity to secure a splendid paying and well established business in one of the best located cities in the South.

Address, for full particulars,

F. FABELS' SONS,

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LOUISVILLE, KY.

ENTIRELY NEW. HOME-LIKE. ELEGANT.
HIGHEST ELEVATION ON HANDSOMEST STREET
American Plan, $3.00 to $4.50 per day.
Telegraph for Rooms at our expense.
C. WARNER STORK, Proprietor.

BIG HOTEL AND SANITARIUM TO BE BUILT AT CUMBERLAND GAP—KNOXVILLE, TENN., April 29, 1889.—The hotel to be built at Cumberland Gap comprises a large first-class hotel for summer and winter visitors, a separate establishment for treatment of invalids, and a third establishment which is to be called a casino. The buildings will cost $550,000, the furniture $150 000. The Cumberland Gap Park Co. of New York will establish this enterprise. Plans are being drawn for the buildings now by Messrs Bigelow & Dufais, architects and landscape gardeners, of New York.

THE AMERICAN ASSOCIATION, Limited,
ALEX A. ARTHUR, Genl. Manager.

RAILROAD TO BE BUILT FROM CHATTANOOGA TO THE MISSISSIPPI—WALLVIEW, TENN., May 2, 1889.—We have secured charter for the Kansas City, Chattanooga & Port Royal Railroad. We have a strong backing of American and English capitalists. Our line will run over more mineral, better farming and timbered lands than any in the United States. Will do more to unite the Northwest and Southeast together than all the railroads ever built, and will pay the builders or owners a larger income than any line in the United States. It will do more for Kansas City, Chattanooga and Port Royal, and also South Pittsburg, than anything ever done for them. We shall build this line quicker than any line ever was built in America.

J. C. WALL.

BUILDING SEWER PIPE WORKS—CHATTANOOGA, TENN., May 3, 1889.—Application for charter for "Lookout Sewer Pipe Co." has been made under the laws of Georgia by J. G Rawlings, M. A. Woodburn, E. P. Durando and J. Irwin Woodburn, of Chattanooga, Tenn., and F. G. Bennett, A. A. Bennett, John I. Smith and W. A. Richard of Jackson, Michigan. It will be organized with a paid up capital of $80,000. The works will be erected in a tract of more than 50 acres of a very superior clay, in Walker county, Georgia, but in the immediate vicinity of this city, a branch road being built to connect with the Belt railroad. Principal office will be at Chattanooga. It is intended that the plant will be one of the largest in the South, and that it will compare favorably with any in the country. The main building will at present be 62x364 feet and two or three stories in height. The kilns will be of the largest size and with the latest improvements. It is hoped that the works will be in operation not later than August 15.

CICERO.

IRON FURNACE, ROLLING MILL AND COKE PLANT TO BE BUILT.—FORT PAYNE, ALA., May 3, 1889.—This company has accepted designs and specifications for a blast furnace 11 feet 6 inches by 55 feet high. The general plan is so arranged that a second stack can be built without altering arrangement of engines or boilers. The company is now receiving bids for the construction and erection of its plant to be built under the direction of the designer, Mr. J. H. Mullin, M. E., under whose supervision the Ohio & Western Coal & Iron Co.'s twin furnaces at Floodwood, O., were erected. In connection with the furnace plant the Fort Payne Rolling Mill Co. will ereect a 50-ton rolling mill complete with all improvements. There will also be erected a coke oven plant of 200 ovens. Within one mile of the furnace site are excellent iron ores, a soft brown hematite, yielding from 60 per cent. to 65 per cent. of metallic iron, a hard fossiliferous red hematite, very high in lime, which yields 50 per cent. iron; also inexhaustible beds of limestone, suitable for furnace use, and two seams of coal, one of which is coking coal of the first quality. An analysis of coke from this coal compares favorably with that of the Cripple Creek, southwest Virginia, and is better than that from the Connellsville district. The erection of these different plants will be pushed rapidly to completion.

FORT PAYNE FURNACE CO.

RYDER & DEARTH, DESIGNERS, WOOD ENGRAVERS & FINE COMMERCIAL PRINTERS.
PHOTO-ENGRAVING IN ALL ITS BRANCHES.
Specialists in fine Machinery and general Wood Engraving, Portraits, Buildings, etc. Artistic designs in Letter and Bill Heads, Business Cards, Display Lettering for advertising purposes, etc. Best work. Lowest prices. Electrotyping at lowest rates. 91 WESTMINSTER STREET, PROVIDENCE, R. I.

$80 will buy the best BAND SAW in the world. $100 will buy our new PATENT 40-inch BAND SAW. $185 will buy our new PATENT BAND RESAWING MACHINE. $125 will buy the best AUTOMATIC RIP SAWING MACHINE, weatherboarding attachments included, and one 12-inch RIP SAW.
For further particulars address
STANDARD MFG. CO.
Moore's Hill, Ind.

The WELLINGTON BELT HOLDER.

LATELY IMPROVED.
Just the thing to shift large belts driving Dynamos, Blowers, Gins, Saws, &c. Belt stops and slackens when machine stops. Thousands in use, cost very low. Sent on trial. Permit us to quote you prices.
W. R. SANTLEY & CO. Wellington, Ohio.

WIRE and WIRE GOODS.
Wire Cloth, Rope. SCREENS for Coal and Ores. Barbed and Plain Fencing Wire. Bank and Office Railings.

Artistic Work a Specialty.
Send for catalogue and mention this paper.

THE CELEBRATED
Baxter Steam Engine and Boiler
COMBINED.

Baxter Engine.
Greatly improved and reduced in price.
The Most Safe, Simple and Economical Engine for Light Work Extant.
Sizes from 2 to 10 horse power.
Send for new catalogue.
FRANK TOOMEY,
131 NORTH THIRD STREET, PHILADELPHIA, PA.

The Belden Machine Co.
NEW HAVEN, CONN.

Cos's Less for Repairs; Occupies Less Space; Requires Less Power,
And in every particular Beats the World.
DROP FORGINGS TO ORDER.
Send for Circular.
Improved Upright Power Hammer.

SHEPARD'S New $60 SCREW-CUTTING FOOT LATHE

Gap Lathe, $1.25
Foot and Power Lathes, Drill Presses, Scroll Saw Attachments, Chucks, Mandrels, Twist Drills, Dogs, Calipers, etc.
Lathes on trial. Lathes on payment.
Send for catalogue of Outfits for Amateurs or Artisans.
Address H. L. SHEPARD, Agent, 134 E. 2d Street, Cincinnati, Ohio.

Wood-Working Machinery

For Furniture, Chair and Cabinet Factories, Planing Mills, Box Shops, Agricultural, Car, Sash, Door and Blind Works and General Wood Workers.
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44 Water St., Fitchburg, Mass.

E. & B. Holmes
BUFFALO, N. Y.
MANUFACTURERS OF
BarreL
MACHINERY.
CHAMBERS
Patent Barrel
HEATER.
CAPACITY:
300 tight or 500 slack barrels per day. The best Heater made.
E. & B. Holmes,
SOLE AGENTS.

THE Sigourney Tool Co.
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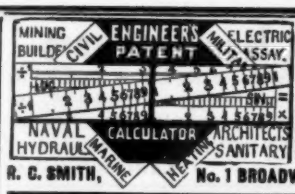
One, Two and Three
Spindle
DRILLS.
Sensitive,
STRONG
—AND—
Workmanship
UNEQUALLED.
Special Machinery, Tools, Models, &c. Built by Day or Contract.
THOS. K. CAREY & BROS., AGENTS, BALTIMORE.



Size 10x¾ x1¼ inch. Complete pocket book. All practical problems solved at sight. Mailed on receipt of 75 cts.
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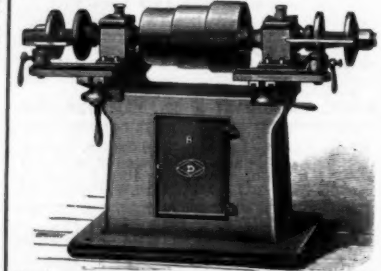
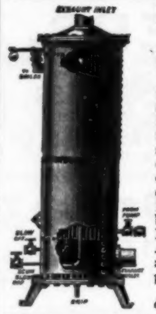
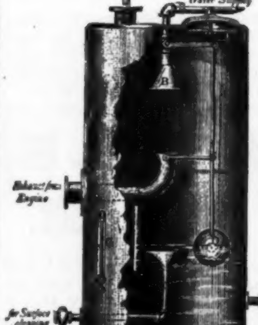
Grinding & Polishing Machinery
In all sizes and every description. Send for catalogue. Correspondence solicited.
DIAMOND MACHINE CO.
PROVIDENCE, R. I.

Southern Agts.—T. K. CAREY & BROS., Baltimore.

WANTED—Steam users to know that WEBSTER'S "VACCUUM" FEED WATER HEATER and PURIFIER utilizes exhaust steam, for winter and summer use, to the very best possible advantage, as explained in pamphlet, for which address WARREN WEBSTER & Co., 491 N. Third Street, Philadelphia, Pa.



Kroeschells & Bourgeois'
PATENT
FEED WATER HEATER.
For Heating Water by EXHAUST STEAM. We guarantee to heat the feed water to within a degree or two of temperature of the exhaust steam. The great trouble with other heaters, caused by the early and frequent corroding of Flues is obviated in our Heater—the material of tubes being the BEST OF BRASS. No back pressure to engine. All sizes from 30 to 1,000 h. p. and larger. Saves boiler repairs. Saves fuel.
Office and Works:
4 to 12 Michigan St., Chicago, Ill.

Ewer's Feed Heater and Purifier.


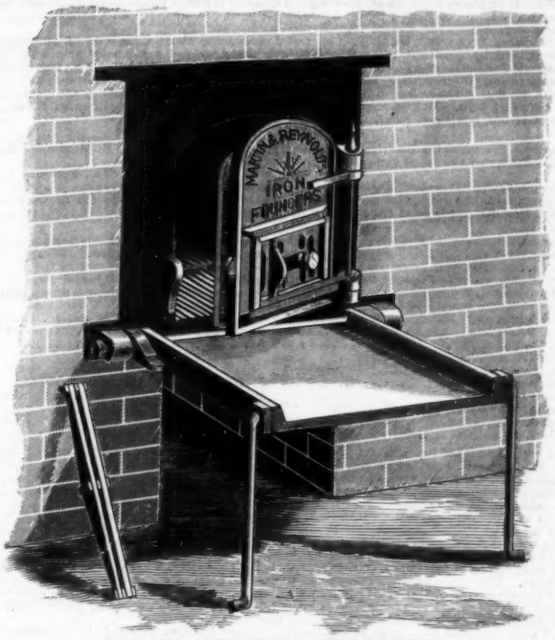
It will relieve the engine from all back pressure and heat the water to 212° Fahr. There is nothing to get out of order and it will last as long as the engine. The saving of fuel gained in putting feed water into a boiler at 212° Fahr. over the same water at 60° Fahr. is about 14 per cent.
It is the cheapest Feed Water Heater in market for its capacity. It is more economical in its use of water than any other. It can be set up by anyone of ordinary intelligence.
Progressive Iron Works Co.
251 and 255 Green Point Ave.
BROOKLYN, N.Y.

OUR
REDUCING VALVE
IS THE
STANDARD
Used by the
American and Southern Cotton Oil Co.'s and all the Sugar Refineries.
Steam Regulating Devices.
Mason Regulator Co.
BOSTON.

To Brick Makers.

The Martin & Reynold's improved furnace for burning brick, illustrated on this page, is of importance to brick and tile manufacturers who wish to make first-class goods at the lowest possible cost for burning The manufacturer claims that "this furnace will burn better brick with less fuel than any other style or way of burning now in use.

"With this furnace you can use wood, tan-bark or coke to dry off with; then use either coal or coke to finish with.



IMPROVED FURNACE FOR BURNING BRICK.

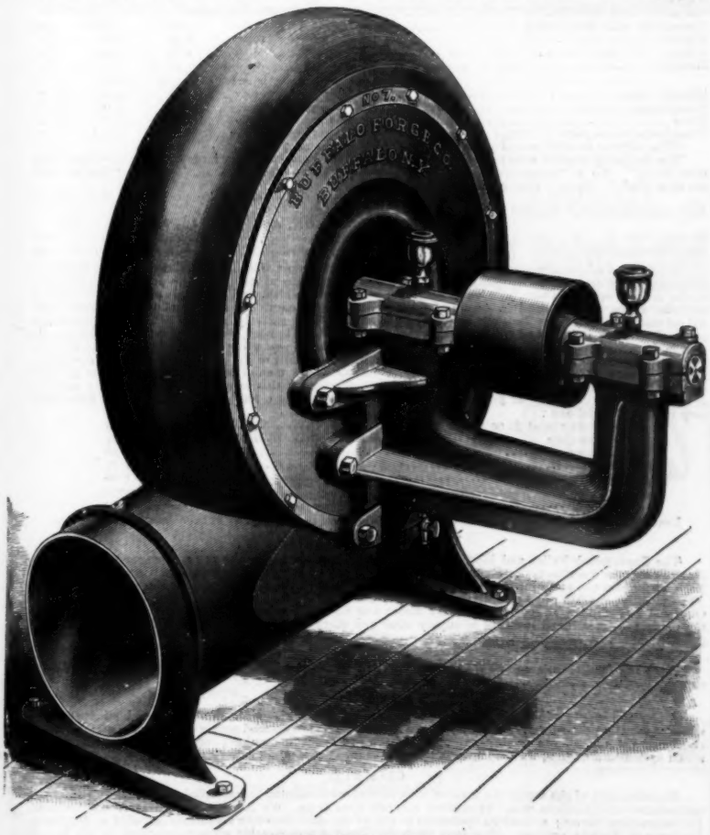
"With wood at $4.00 per cord, and slack-coal at $1.50 per ton, you can save at least 40 per cent of cost of burning by using this furnace and coal.

"You can make better arch brick and overhangers with this furnace than with any other way of burning, and the brick will be better and command higher prices."

Three sizes of the furnace are made, Nos 1, 2, 3. W. T. Hollingworth, 234 West Pearl street, Cincinnati, O, will furnish any further information desired.

The Buffalo Exhaust Fan.

We illustrate herewith a new exhaust fan, which possesses several distinguishing features. Prominent among them is the solid case, the perripheral portion of the shell or case being cased in one solid piece, to which the center plates are accurately fitted metal to metal without the interposition of any foreign substance whatever. It is claimed as the result of this manner of construction that the fan is practically one piece, and that under any service the bearings must always be in perfect alignment vertically and laterally with the rest of the machine.



BUFFALO EXHAUSTING FAN.

The journals are long and heavy, supported by the arm having planed surfaces fitted accurately to the body of the fan. By a perfected system of gauges and templates it is claimed the different parts of the fan are so well proportioned and fitted each to the other that at the highest speed there is practically no vibration. Both bearings of the exhaust fan are on one side, leaving the inlet unobstructed

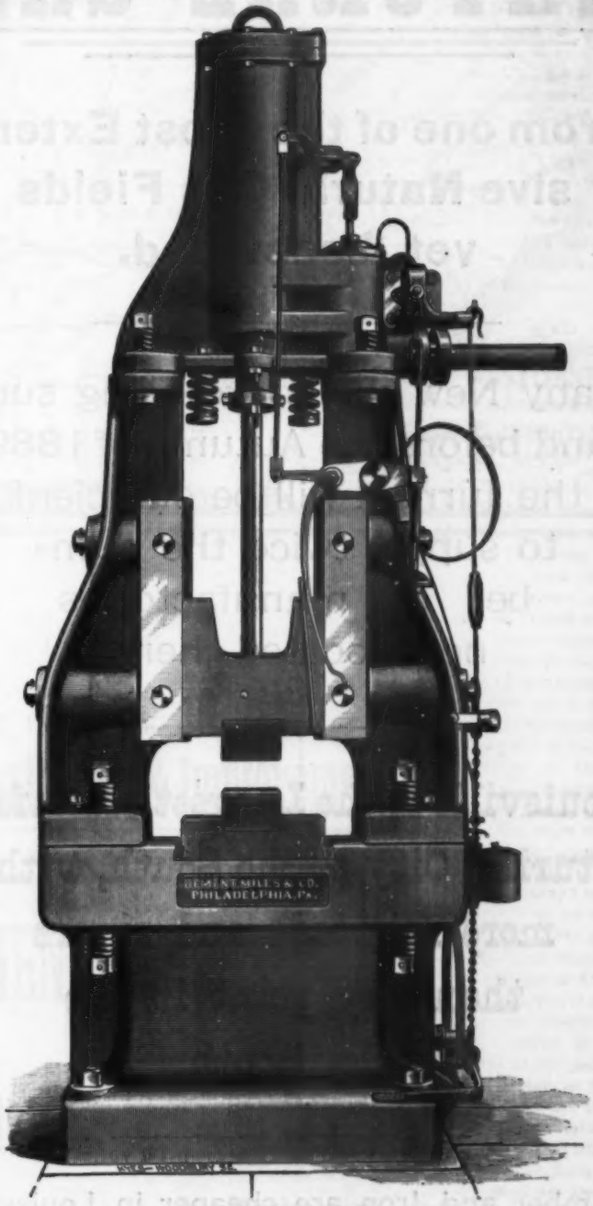
These exhausters are especially adapted for removing smoke and gas generated in blacksmith shops, chemical works and factories in general: for removing dust from emery and other polishing wheels, buffing machines, and for the removal of offensive odors from try kettles, varnish factories, &c.

For further particulars as to capacities, prices, &c., address the manufacturers, the Buffalo Forge Co, Buffalo, N. Y.

Steam Drop Hammer.

The engraving represents a steam drop hammer by Bement, Miles & Co., Philadelphia, Pa., designed to cover a wide range of work. It is double acting, and by it can be given, not only single or successive dead blows, as by an ordinary power drop, but it can be run automatically, or by hand or foot, at any length of stroke, striking light or heavy blows as desired in the same manner as the standard steam hammers made by this firm. This is particularly valuable where drop or stamp work, and forging and finishing are to be done under different parts of the same die. Both hand lever and treadle are provided, no change in any of the connections being necessary to use either one. The normal position of the ram when at rest is at the top of its stroke, leaving all clear below it for changing dies and examining work.

If a single blow is desired, a sharp downward movement of the hand lever or treadle will cause the ram to fall, and when the hand lever or treadle is released, the ram will rise to its original position. The automatic motion and length of stroke are also controlled by the same lever, or by the treadle. To prevent the ram from rising too rapidly, and striking an upward blow, the throttle and main valve are so connected that when the ram rises the throttle almost closes, allowing to pass only the small amount of steam necessary to hold the ram suspended. This feature, essential to the successful operation of a steam drop, and other important details of construction, are well worked out in this machine. As an additional safe-guard, spiral steel buffers are used to stop the ram at the top of its stroke, and protect the cylinder and head from a chance blow. To prevent breakage from continued concussion and jar, sufficient elasticity has been introduced at all desirable points. All fastenings are provided with spiral steel springs, and the adjustable guides, which are used to take up the wear of the ram and keep it in correct alignment, have also steel buffers to take the shock of the blow. These hammers are built in a number of sizes, ranging from 400 lbs. to 3,500 lbs., the illustration being taken from one with 600 lbs. falling weight.



STEAM DROP HAMMER.

LOUISVILLE,

KENTUCKY,

Is now being Supplied with an abundance of

NATURAL GAS

From one of the Most Extensive Natural Gas Fields vet discovered.

Many New Wells are being sunk and before the Autumn of 1889 the furnish will be sufficient to supply twice the number of manufactories now located here.

Louisville is the Largest Manufacturing City of the South, with more railroads and rivers than any point in the whole South.

Lumber and Iron are cheaper in Louisville than anywhere else in the United States, Louisville being the Largest Iron Storage Market in the country.

Address,

YOUNG E. ALLISON, Secretary,

LOUISVILLE, KY.

Circular of the

BUENA VISTA LAND & IMPROVEMENT CO.

On the 10th day of January, 1889, the Buena Vista Co. was organized. At a public meeting of citizens held in Lexington, Va., on the 22d day of January, the subscription books were formally opened. On the 1st day of February the books were closed with $750,000 capital stock subscribed by the people of our county and State. On the 14th day of February the first annual meeting of the stockholders was held, and the permanent organization of the company effected by the election of a president and nine directors.

LOCATION.

This company has acquired 13,000 acres of land on or near the western slopes of the Blue Ridge mountains, at the junction of the R. & A. and S. V. railroads in Rockbridge county, Va. This tract embraces:

1st. The celebrated Buena Vista estate, which is beyond comparison the most valuable mineral property in the South. It embraces 11,500 acres, covering five miles of the Blue Ridge mineral belt, and contains the most extensive beds of the richest brown hematite ore in the South. It also contains apparently large deposits of manganese.

2d. The Green Forest and Hart's Bottom tracts, embracing about 1,200 acres of beautiful level and gently rolling land, lying immediately on North River and the two railroads above mentioned. This tract immediately adjoins the largest Buena Vista ore beds, and furnishes in connection with that property a site for a manufacturing city which has no superior in the country. It not only commands the vast beds of Buena Vista ore, but is the center of a mineral region within a radius of 20 miles and penetrated by the railroads centering here, which in respect to the quantity, quality and variety of valuable ores, as well as other raw materials, is without parallel.

IRON ORE.

We append the following description and analysis of ores by Prof. M. B. Hardin, of the Virginia Military Institute, and challenge comparison:

LEXINGTON, VA., February 19, 1889.

To the President and Directors Buena Vista Company, Lexington, Va.:

GENTLEMEN—At the request of Colonel W. M. Patton I herewith give you the results of analysis of Buena Vista iron ores made from time to time in this laboratory:

In 100 parts.	5	6	In 100 parts.	5	6
Metallic iron	59.020	54.580	Sulphur	traces	.016
Phosphorus	.175	.184	Phosphorus to 100 parts iron	0.296	0.337
Silica	2.300	7.210			

No 5.—"New opening" March 1, 1882. No 6.—"Stock head" June 6, 1880.

No. 6 was sent at my request and selected according to my directions. No. 5 is an exceptionally rich specimen, a complete analysis of which gave the following results:

Iron sesqui oxide	84.31	Phosphoric anhydride	0.40
Water	10.80	Sulphuric anhydride	traces (not detected)
Alumina	1.38	Silica	2.30
Lime	.30		99.98
Magnesia	.18	Metallic iron	59.020
Manganese oxide	.17	Phosphorus	.175
Cobalt oxide / Nickel oxide	.05	Silica	2.300
Copper oxide	trace.	Sulphur	traces.
Zinc oxide	trace.	Phosphorus to 100 parts of iron	0.296

I have been often asked how a "limonite" carrying silica and other impurities could contain 59 per cent. or even over 60 per cent. of metallic iron, when a pure typical limonite contains only 59.9 per cent. of the metal. The apparent difficulty arises from a confusion of terms. All brown iron ores are not limonite. Gothite, which resembles limonite, contains 62.9 per cent of iron, and turgite, which though reddish, is still a hydrated oxide, contains 66 29 per cent. of iron. I may make this matter still clearer by stating that limonite contains 14.4 per cent of water, gothite 10.1 per cent. and turgite only 5 3 per cent. As turgite very frequently occurs with limonite, as gothite closely resembles the latter, and as iron ore originally deposited as limonite may have subsequently lost some of its water, it is very easy to see how brown iron ores may exist which contain more iron than the brown hematite, properly called limonite.

From what I know of the Buena Vista ores, I think specimen No. 6, taken from "stock heap," is a fair representative. This contains 0 337 phosphorus to the 100 parts of metallic iron, which is equivalent to about 0.31 phosphorus to 100 parts of pig iron. An analysis of a specimen of pig iron from Buena Vista ores showed in 100 parts 93.03 metallic iron and 0.28 phosphorus, a result agreeing pretty closely with that calculated from the analysis of specimen of ore averaged from "stock heap."

In 1882 I made a number of analyses of specimens of Buena Vista ores for Mr. J. H. Bramwell, of the New York Iron & Steel Company. These specimens were collected by Mr. Bramwell himself, and the analyses afford the means of comparing the composition of the ores taken from different beds and openings.

These results are as follows:

	1	2	3	4	5
Sesqui oxide of iron	73.51	81.33	82.09	71.52	68.0
Sesqui oxide of manganese	.04	.06	.14	.10	Not determined.
Sesqui oxide of cobalt and nickel	.004	.006	.018	.024	
Oxide of zinc	trace	trace	trace	trace	
Oxide of copper	.014	.028	.024	.040	
Alumina	3.70	1.07	.83	3.62	
Lime	.78	.65	.37	.81	
Magnesia	.40	.32	.19	.41	
*Sulphuric acid (anhydride)	Small, not determined.				
Phosphoric acid (anhydride)	.895	.602	.437	.366	.339
Water	9.88	10.86	10 44	10.04	9.65
Silica	10.33	4.60	4.62	12.50	15.53
Moisture	0.43	0.18	1.48	0 63	0.84
	99.983	99.706	99.639	100.06	.....
Metallic iron	51.46	58.93	57.46	50.06	47.61
Phosphorus	0.391	0.263	0.191	0.160	0.148
Silica	10.33	4.60	4.62	12.50	15.53
Phosphorus to 100 parts of iron	0.760	0.462	0.332	0.320	0.311

*The sulphur in other samples examined runs from .01 to .02 per cent.

The foregoing samples were marked as follows: No. 1. "Lump ore from large exposure on slope called vein No. 4." No 2. "Lump ore, Hays' Bank." No. 3. "Lump ore from shaft." No. 4. "Coarse wash ore from shaft." No. 5. "Fine wash ore from shaft."

Very respectfully. M. B. HARDIN.

Also analysis by Prof. Andrew S. McCreath, of Pennsylvania:

PERCENTAGE OF IRON, &c.

Metallic iron	54.350	Sulphur	.016
Metallic manganese	.369	Phosphorus	.195

In reference to the extent of these ores, we quote from the report of Prof. John Campbell, late Professor of Geology in Washington and Lee University: "We believe that 10 miles is not an extravagant estimate of the beds of ore, and these beds vary from 5 to 60 feet in width, and average at the lowest possible estimate 8 feet in width, and evidently of great depth. The quantity of ore is practically inexhaustible. All of these extensive ore beds are easily approached and inexpensively mined." The actual average yield of this ore in the Amherst furnace, where it was exclusively used, was 53 per cent., or 1,060 pounds of iron from 2,000 pounds of ore. The product of this furnace was a high grade of warm blast foundry iron, used in the manufacture of car wheels. It was made at a cost of $14 per ton, and sold in the beginning of January, 1889, at $19 50 f. o. b. here. It is estimated by men of practical experience in the iron business that coke iron of superior quality can be manufactured at this point and laid down in the markets at an average maximum cost of $12 per ton. The cost of producing a ton of coke iron at Green Forest has been computed as follows:

Two tons ore at $1.00 per ton	$2 00
1⅔ tons coke	3 64
Limestone	40
Labor	1 75
Incidentals and repairs	1 00
Total	$8 79

Leaving an actual profit, through a long period of market quotations, of at least four dollars per ton.

RAILROAD FACILITIES.

The Shenandoah Valley and Norfolk and Western Railroads, under the same management, gives us a direct line to the Pocahontas or Flat-top coal fields. The Richmond & Alleghany and Chesapeake & Ohio Railroads, under the same management, gives us a direct line to the New River and Kanawha coal region. The Baltimore & Ohio gives us a direct line to the Connellsville coal and coke region. The Baltimore & Ohio and Shenandoah Valley Railroads are direct and competitive lines to the Northern markets. All of the roads here mentioned compete to supply coke and carry away products. The advantages of such a position cannot be over-estimated.

FUEL.

From the foregoing it can be readily seen that no other point in the South can command coke of such superior quality in such abundance, or at less cost.

LABOR.

A plentiful supply of reliable white labor can be obtained at this point. The great predominance of the white population precludes the possibility of race troubles. The few colored people we have here are peaceable, contented and much more reliable than others of the same race in Southern communities. Surrounded by a rich agricultural region, the cost of living here is reduced to a minimum.

CLIMATE.

No other part of the world can boast of a climate so well adapted to industrial pursuits. In winter the temperature rarely falls to zero. In summer it rarely rises to 90. We have neither blizzards nor cyclones. No destructive storms; no serious epidemics or any of the other extreme visitations peculiar to Northern, Southern or Western sections. Our pure, high, dry, healthy and equable climate conduces to the best of health, and furnishes the energies and opportunity for continuous out-door labor.

PURPOSES OF THE COMPANY.

The Buena Vista Company proposes to develop its magnificent ore beds with great energy; to promote the establishment of furnaces, mills and factories of all kinds, and to build a busy manufacturing city, which shall be second to none in the State. As no other point can compete in natural advantages, the company is in a position to offer more attractive and valuable inducements than any other corporation in the South.

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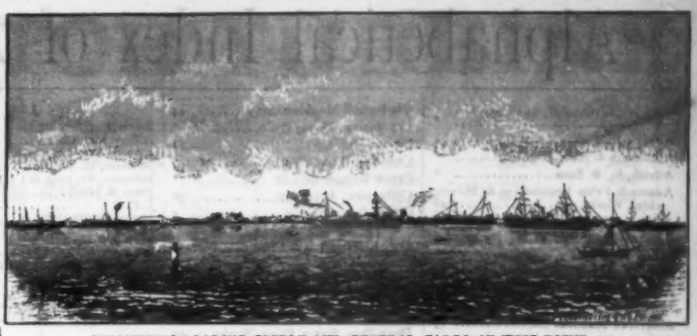

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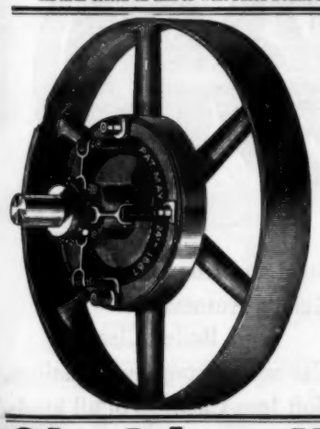

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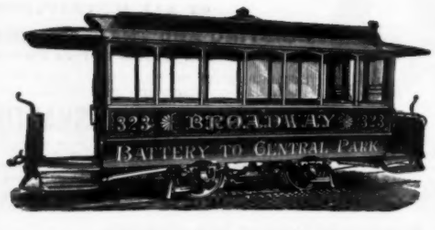

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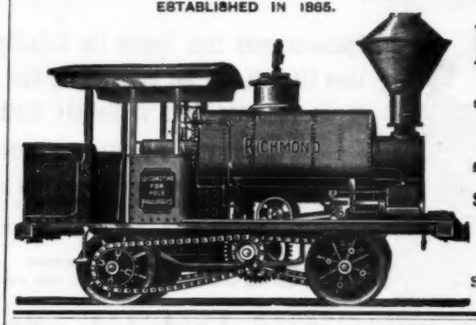

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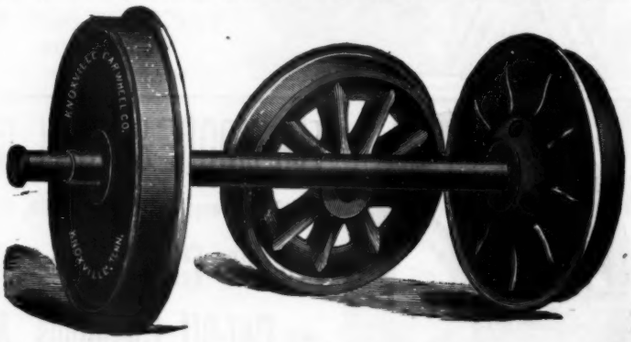

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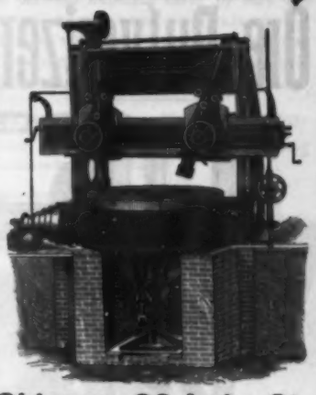

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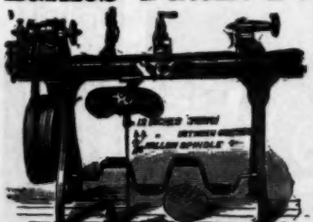

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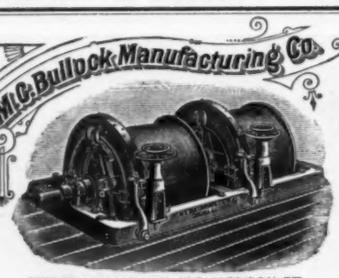

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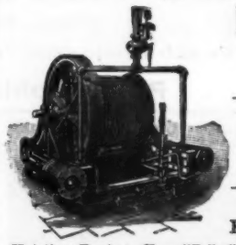

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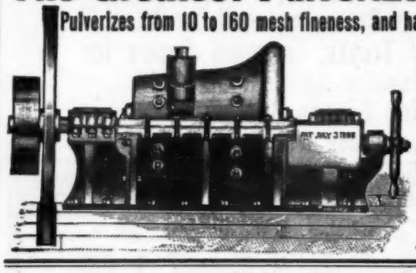

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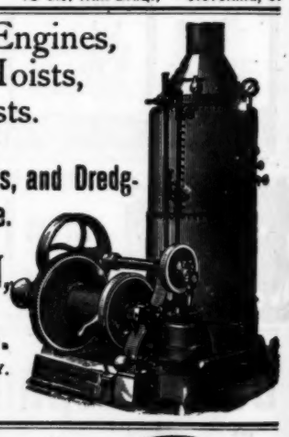

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Improved Rope Drive Power Traveling Crane.

The cut herewith represents an improved rope drive power traveling crane of 12 tons capacity, 52 feet 8½ inches span, recently built by the Walker Manufacturing Co., of Cleveland, Ohio, for Ranken & Fritsch Foundry & Machine Co., of St. Louis, Mo.

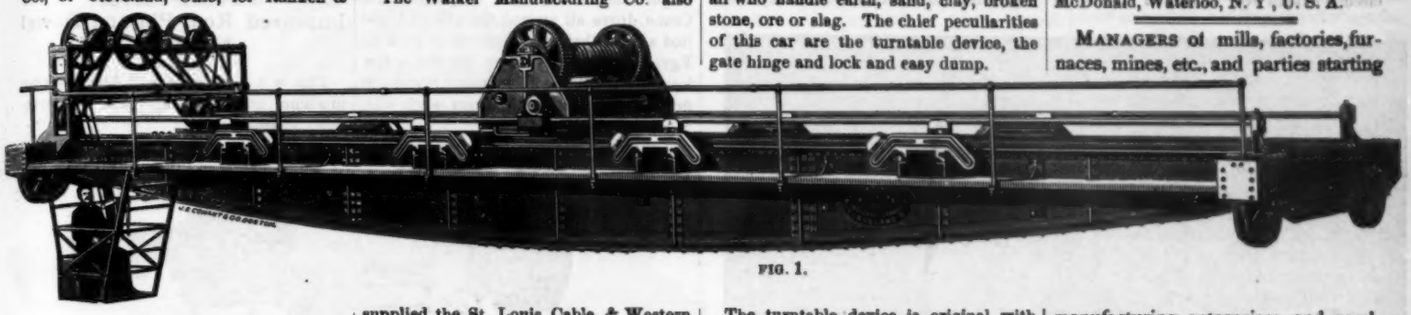


FIG. 1.

The main cross girders forming bridge are made of steel plates, reinforced by steel angle and T irons, all thoroughly rivetted and secured together. The main truck wheels supporting the bridge are of cast iron with chilled rims, and are secured to steel axles supported in bronze bearings. The longitudinal traverse of this crane is effected by means of a cross shaft connected by spur gearing with the axles of a pair of the truck wheels, in connection with the driving mechanism located at one end of the bridge.

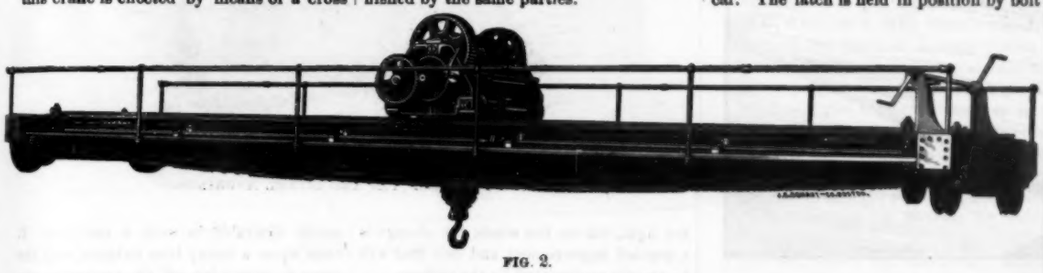


FIG. 2.

The trolly carrying the hoisting mechanism is supported on low steel rails secured to top of main girders, and consists of heavy cast iron sides mounted on cast iron wheels having chilled rims, which are secured to steel axles operating in bronze bearings. The cross traverse is effected through a cross shaft supported in improved tumbler bearings which are secured to main cross girder, the shaft having feather seats throughout its length, and on which a steel worm is carried which engages with a worm wheel having a phosphor bronze rim, this wheel being secured to a shaft on the trolly having connection through spur gearing with the axle of one pair of the truck wheels of trolly. The hoisting mechanism consists of a heavy cast iron barrel with right and left-hand spiral groove for the chain, which admits of the block ascending and descending perpendicularly, thus maintaining an equally distributed load on each of the two main cross girders. The barrel is secured to a steel spindle supported in bronze bearings, and is operated by spur gearing in connection with worm gearing similar to that already described, and arranged so that one movement disconnects one set of gears while connecting the other. The barrel is also fitted with a ratchet and pawl as an additional safeguard.

The driving mechanism is located at one end of the bridge. On the ends of the three upper or driving shafts of same, rope pulleys are secured, which are driven by an endless rope; from these shafts open and cross belts convey power for manipulation of crane. The crane has a platform with hand railing along one side of the main girders, and also has a cage on the same side at one end of the bridge, in which the operator sits and commands a view of the entire shop and crane. The seat in this cage is a tool box in which all necessary tools may be kept. The three operating levers, giving six motions to the crane, three of which may be in operation at the same time, are conveniently located for operator.

The Walker Manufacturing Co. also supplied the St. Louis Cable & Western Railway Co., of St Louis, Mo., with a crane of 12 tons capacity, 42 feet 6 inches span, of the same type as the one just described, with the exception of omission of the rope-driving mechanism; same being operated by hand by means of cranks, which is shown in smaller illustration This crane was located so as to be accessible to all parts of the massive machinery in the power house, which was also furnished by the same parties.

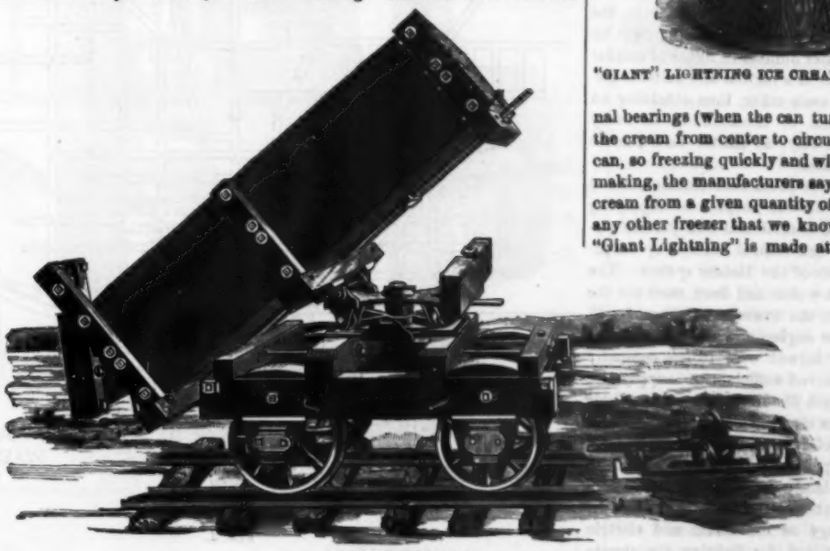
The Walker Manufacturing Co. is prepared to supply cranes of this type of any capacity and span, and are also manufacturers of various kinds of cranes for operation either by power or hand; and those who are contemplating work of this character will do well to confer with them relative to same.

New Dumping Car.

We illustrate a new dumping car invented and manufactured by Messrs. Ryan & McDonald, of Waterloo, N. Y., a model of which may be seen at their Baltimore office, No. 11 South street. The car is a rotary or universal dumper, built of white oak, the frame of 4x6 timbers and the box of 1¼-inch oak plank, the whole resting on four 16-inch chilled spoke wheels, 2¼-inch axles, journals outside, and gauged for track 30 or 36 inches wide. It is also built any gauge desired. The wheel base of this car is thirty inches, its length 5 feet, width 5 feet, depth 16 inches, height above rail 47 inches, capacity 1½ and 2 cubic yards, and price within the reach of all who handle earth, sand, clay, broken stone, ore or slag. The chief peculiarities of this car are the turntable device, the gate hinge and lock and easy dump.

The turntable device is original with this firm, is very simple, as the illustration shows, and consists of two plates of cast iron, top and bottom. The bottom plate rests on the middle cross-sills and is square; in the center of it is cast a hub, which projects above the plate 6½ inches. On this casting are two latch rests. The top casting is provided with 4 small rollers, a wrought iron latch and dumping lugs, and revolves with the body of the car. The latch is held in position by bolt and guard, and drops automatically into latch-rest on either side, so that when running it prevents the car from revolving or slewing, and can be raised by the hand or foot, when the box becomes free to revolve. It is safe, strong and simple.

The gate hinge is of bolster plate style, adapted to needs of car, and is strong and simple. The gate is locked down by the same motion that locks box to frame, by lever, which is held locked fast by automatic drop-catch, that car may not dump when running. The box is so balanced upon frame that it is very easily dumped by even a boy.



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These cars are especially adapted to the work of grading, mining ore, sand, gravel, clay, broken rock, brick-yards, quarries, coal and ore shifting, levee building, etc., and wherever used are highly commended for their simplicity, strength and efficiency. In their catalogue Messrs. Ryan & McDonald give a very valuable table of comparison between handling earth by cars and wagons, showing capacity of cars, etc.

Prices, with descriptive catalogue and circulars, can be had from Messrs. Ryan & McDonald, Waterloo, N. Y., U. S. A.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

"Giant Lightning" Ice-cream Freezer.

The "Giant Lightning" ice-cream freezer which we illustrate has the celebrated wheel dasher, which revolves on its four-

"GIANT" LIGHTNING ICE CREAM FREEZER.

nal bearings (when the can turns), forcing the cream from center to circumference of can, so freezing quickly and with ease, and making, the manufacturers say, "more ice cream from a given quantity of cream than any other freezer that we know of." The "Giant Lightning" is made at present in 14 and 20-quart sizes, but the manufacturers expect to make larger sizes next year. It is extra heavy, the can made from 4X tin. The freezer has also hinge top, which can be entirely removed if desired. Shepard Hardware Co., of Buffalo, N. Y., are the manufacturers.

Heisler System at Wabash, Ind.

The Heisler incandescent plant for the illumination of the city of Wabash was completed some time ago. 132 lights of 30 candle-power have been placed at each intersection of the streets. The circuits extend over an area of 12 miles of streets, No 8 wire being used throughout. The street fixtures are directly attached to the poles in a substantial fashion, supported by iron castings made for that purpose, each light being at the height of about 12 feet above the ground, as shown in Fig. 1.

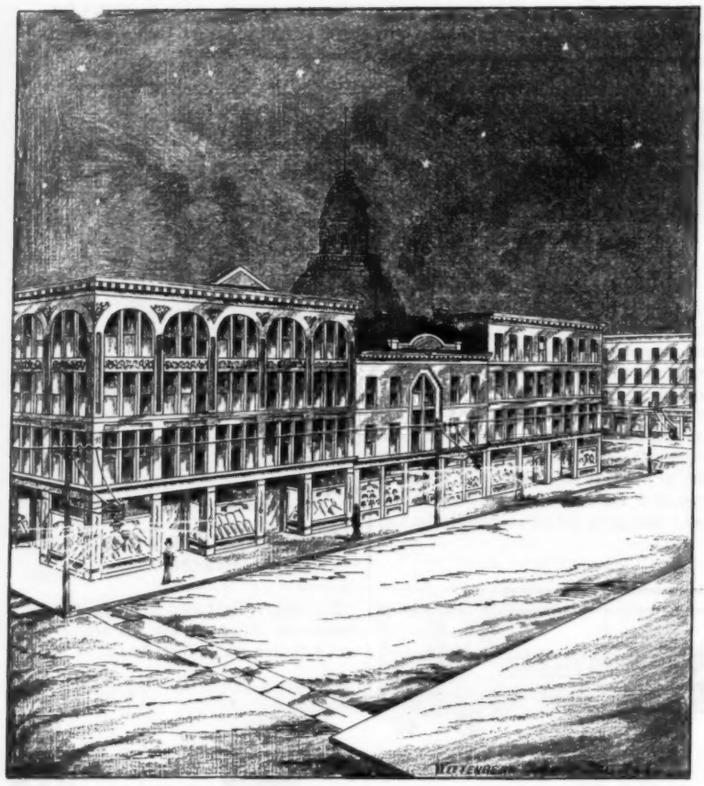


FIG. 1.

Wabash was the first city in the United States to adopt the tower system for the illumination of the streets. Some time ago, however, a change was thought necessary and improvement sought in the direction of better distribution of light by using a greater number of lights of smaller candle-power at a regular and suitable distance from each other, thus obtaining an equal amount of illumination in every part of the city, no matter how remote from the center.

A number of prominent citizens formed a company for the purpose of supplying the city and commercial and private circuits from one central station by incandescent lights of the Heisler system. The steam plant which had been used for the arc lights on the tower, consisting of a 45 horse-power engine and a 45 horse-power boiler, was turned over to the company and has proved sufficient to supply not only the street illumination over the whole extent of the city, but also a plant of about 200 lights of 20 and 30 candle-power for stores and private residences. This demonstrates plainly the financial strength of the new enterprise, considering that the entire energy of the steam and electric plant is utilized for lighting the streets and sidewalks with satisfaction to the taxpayers, and enough capacity is left to light the interior of the commercial part of the city. Fig. 2 shows the location of the lamps.

The change from tower lighting to incandescent must naturally have had a strange effect, and it is interesting to take note of the statements made in regard to the success of the new illumination under the first impression received from it. The Wabash Times writes as follows:

"Wednesday afternoon, when but a few citizens were expecting it, the electric light was turned on. The contractors completed their work Wednesday afternoon and decided to surprise the citizens by illuminating the city without notifying anybody of their intentions. Opinion was varied at first as to the merits of the light. A number seemed surprised because the light differed from the old system which had proved such a failure, but a large majority of the citizens hailed the change with enthusiasm and delight. There is no denying of the fact that the present illumination is a great improvement over the tower plan as used by Wabash for nearly if not fully eight years. The Heisler electric light is suitable for both street and indoor illumination, and the large number of lights now used insures a more thorough illumination of the city than could be possibly attained by the other plan. Last night a representative of the Times, accompanied by Secretary Bogue and Councilmen Hipskind and Crane, drove all around the city and visited streets that were formerly as dark as Egypt. At present there are but a few localities not lighted. In many places the dense shade trees interfere very much with the light, but on the whole the change is a decided improvement and one that will be greatly appreciated by the citizens.

FIG. 2.

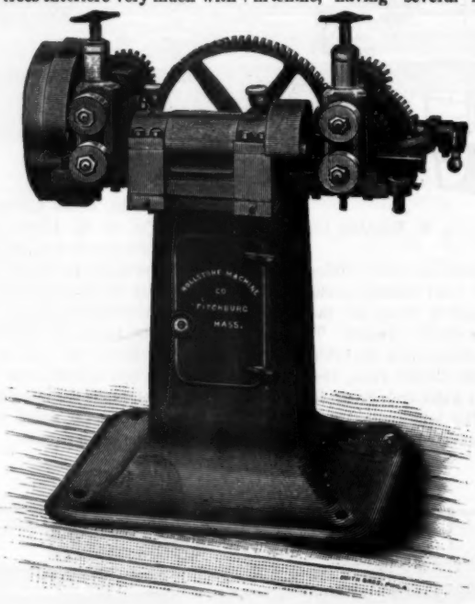
The Heisler system has been tried in other cities with entirely satisfactory results, and Wabash certainly has no reason to regret the change. The light is soft and mellow and not at all injurious to the eyes, and those who have tested the matter say that it surpasses all other systems for indoor and outdoor illumination."

The following points are worth knowing:

One hundred and thirty 30 candle-power lamps are placed throughout the city at each intersection of streets The circuits extend over an area of over 12 miles of streets, No. 8 wire being used throughout. All the lamps are connected in direct series. The illumination has been extended to a great number of streets which had before been left in the dark. The steam power formerly required for supplying the arc lights on the tower has proved sufficient to supply the extended illumination of the city and to connect on to it a commercial circuit of 200 lights of 20 and 30 candle-power.

Improved Rod, Pin and Dowel Machines.

This is a very rapid and fine working machine, having several late improvements desirable in such a machine. It rests upon a heavy iron column, and the general principles of its operation are briefly as follows: The stock to be operated upon, having first been sawed into square sticks of the required size and any length desired, is passed lengthwise between iron feed rolls to a rapidly revolving cutter-head, through which in passing it is reduced to a cylindrical form for such work as curtain rolls, rods, pins, dowels, chair stretchers, broom handles, &c., at the enormous speed of 1,000 to 3,000 lineal feet per hour, the production varying according to size, quality of wood, &c.



IMPROVED ROD, PIN AND DOWEL MACHINES.

The entering feed rolls have square grooves to fit the rough stick to be turned, and the discharge feed rolls have round grooves corresponding to the bore of the turning head, and consequently exactly fit the finished rod, and do not dent or deface it as it passes out of the machine.

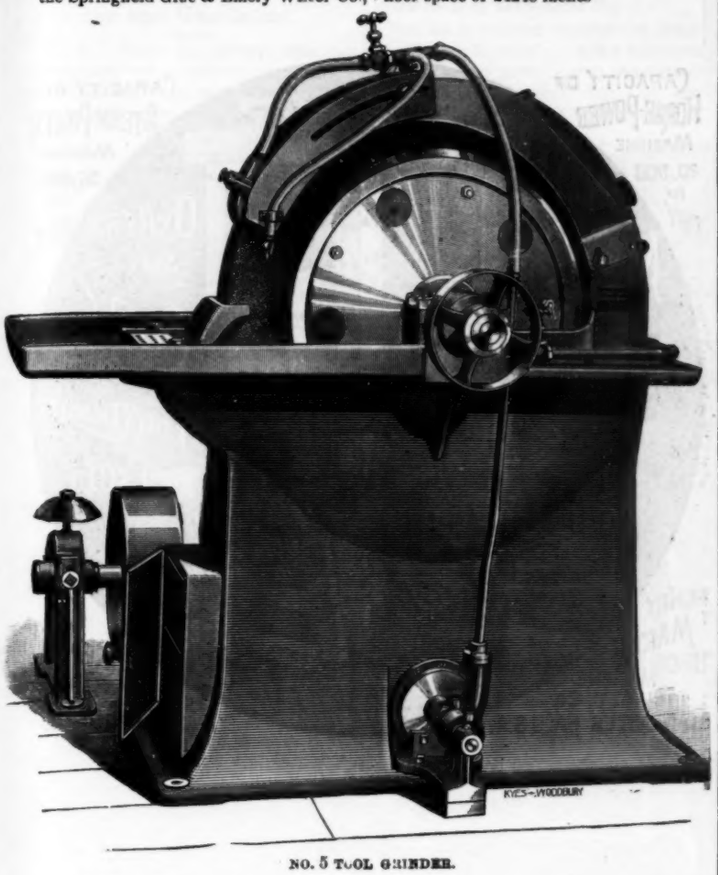
The machine is made fully adjustable, so that all parts are rapidly set to coincide one with another. It is also provided with a reverse feed motion for the purpose of quickly discharging defective sticks which the operator may not desire to pass through the cutter-head. The cutter-heads are made of the best brass gun metal, and the hollow arbor is made of steel with nicely ground bearings.

The counter is provided with a patent self-oiling pulley, 8 in. diameter, 3½-in. face, and with a 24-inch driving pulley, which belts on to a pulley 5 in. in diameter on the cutter-head. The counter should run 650 to 750 turns per minute, giving to the cutter-head a speed of 3,120 to 3,600 per minute, according to the size of rods the machine is to be most used to turn.

The same manufacturers also build a lighter dowel machine (No. 0) all complete as described in the Nos. 1 and 2, except that it is made light for very rapid work on small rods not to exceed in size ⅝ of an inch in diameter. For organs, and any work requiring light, perfect rods, this machine is claimed to have "no equal, being made in the best manner, and of the best of stock, and very neat in design." Any further information desired can be had from the manufacturers, the Rollstone Machine Co, Fitchburg, Mass

No. 5 Tool Grinder.

An improved form of emery wheel tool grinder is at present being turned out by the Springfield Glue & Emery Wheel Co., of Springfield, Mass. As shown in cut, it is a very heavy machine, weighing over 2,300 pounds, and the base has sufficient flare to give it a very solid floor foundation, which prevents vibration when being used. An iron tank easily reached is placed inside the base under the wheel to receive the water coming from it, and catches the waste ground off, which quickly settles to the bottom. When sufficient collects, the tank can be easily drawn out and emptied. The water overflows from the tank by means of a siphon, which takes the water enough below the surface to prevent it collecting any oil or scum, and conducting it into a second tank directly underneath, to which a contrifugal pump is attached, arranged to carry the water to the wheel, where valves regulate the flow to any desired amount.



NO. 5 TOOL GRINDER.

The water flows on to the wheel through a small opening on the under side of the water spreader, which is made of brass, giving an even sheet of water across the width of the wheel. The tanks being inside of the base are out of sight, except when the doors are open, having the pump connected to only the lower base, the upper tank free from pipe connection, so that it can be quickly removed and emptied.

The table has sufficient pitch from all sides towards the wheels to prevent the water standing on the machine. It has self-oiling bearings 8 inches long, a 2¼-inch steel spindle, and carries an emery wheel 36 inches in diameter and 4 inches thick, with a 24-inch hole. The wheel is held by large collars.

Owing to the large hole, there is no wheel or hub or center to throw away, making a large saving in the cost of future wheels.

The collars are arranged so that the wheel can be quickly balanced. There is a hinge door on the back side of the hood, easily arranged so that strong, heavy tools can be ground on that side in good shape, the water coming on just below this opening to prevent any heating of the work. The machine stands 36 inches high from floor to center of spindle, and it covers a floor space of 24x48 inches

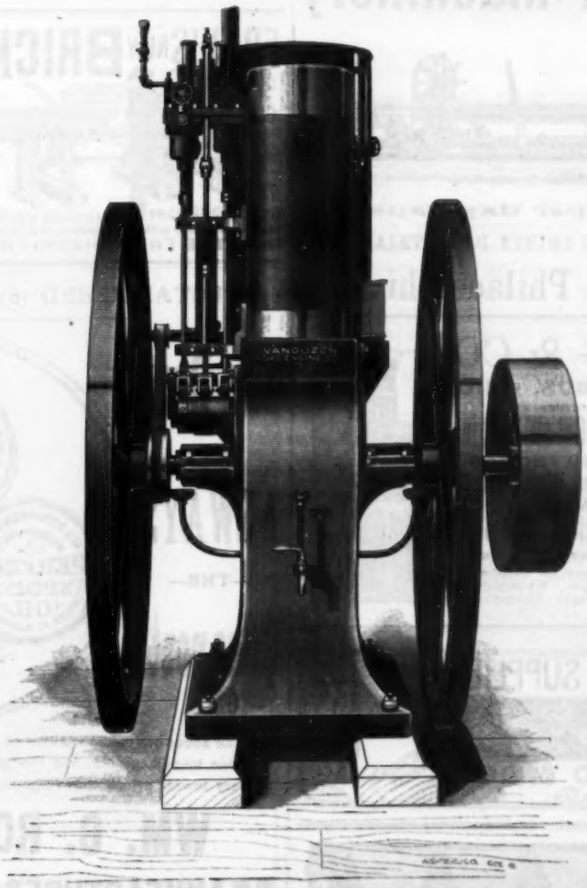
The Van Duzen Gas Engine.

It is not necessary to enter into any extended discussion of the theory and principles of gas engine construction and operation. All gas engines take advantage of the great expansive force of a certain mixture of common coal or other combustible gas and air when ignited. The power and efficiency and the economical working of any gas engine primarily depends on the proper admixture of air and gas, as well as certain conditions regarding its ignition. In the Van Duzen gas engine which we illustrate these prime conditions have, it is said, been so thoroughly mastered as to justify the manufacturers in claiming for their engine that it works on new principles, since it is, they say, a departure from all other engines in constructive principles, and that it removes any objections to the use of gas engines that may heretofore have existed, because its action and construction are such that those objections are obviated and overcome.

The Van Duzen gas engine is of the vertical or upright style. On this account the amount of floor space required is very small. The manufacturers say:

"By this method of construction we succeed in obtaining an engine which is entirely self-contained, the cylinder being directly above the center of the crankshaft, which is in turn directly above the mass of the base; as a consequence all strains are directly *contra* to the main mass of the engine (i. e., the base), in place of being at right angles to same, as in the horizontal type of engine. The beneficial results of our method of construction in thus bringing the main strain of the engine directly against the part best calculated to withstand it are too obvious for detailed explanation.

In our engine the concussion resulting from the ignition of the charge—which is, of necessity, about the same in all gas engines—is assimilated by the solid and secure base. In all gas engines of the other or horizontal type this concussion is, in large part, communicated to the floor on which the engine is placed, causing a jar that is at least unpleasant; and in many cases, where the building is tall and narrow, or perhaps not too strongly constructed, the continued recurrence of this jar gives an oscillating impetus to the engine, which is in turn imparted to the floor and entire building, thereby injuring or imperiling it to no small degree. No such motion can occur in the use of the Van Duzen gas engine."

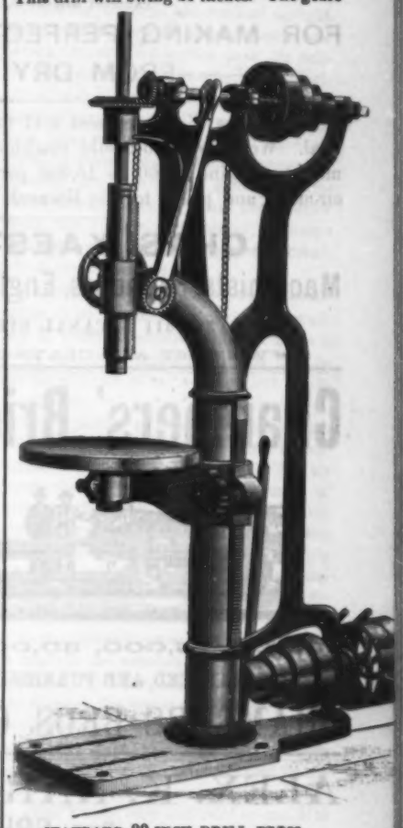


THE VAN DUZEN GAS ENGINE.

Full description of this engine can be had from the Van Duzen Gas Engine Co.

Davis Standard 20-inch Drill Press.

This drill is made from carefully studied designs by W. P. Davis, Rochester, N. Y., after several years' experience in the manufacture of drills, key seaters and slotting machines, and is said to be one of the best on the market for actual use, where quantity as well as quality of work is desired. This drill will swing 21 inches. The gears and racks are all cut from the solid and have quick return. The table swings around the clamp, and will take work of any kind usual to that class of machines. The spindle and shaft are steel, and the gears are cut two to one, and cone has four inches for belt. The drive pulleys are 10 inches diameter, with 2½-inch face, and should make 300 revolutions per minute. The spindle has a feed of 12 inches, which is unusual for this size of drill. They are well made and accurate. Spindle is 15-16 inch diameter and fit to Morse taper No. 2. The clamp is 5 inches in diameter. This drill has been favorably known and tested throughout the United States on all kinds of work, and found to be equal to what is expected of drills of this class. The weight is 700 pounds. A careful investigation of the cut will satisfy any one that it is a very safe as well as durable machine. For prices and further particulars address the manufacturer.



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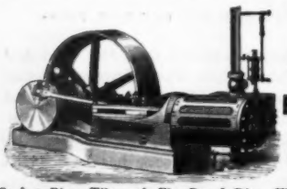

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Sturtevant Improved Steam Hot Blast Apparatus for Heating and Ventilating.

Mr. B. F. Sturtevant, Boston, Mass., has just brought out an entirely new design of his steam hot blast apparatus, which is now so well known.

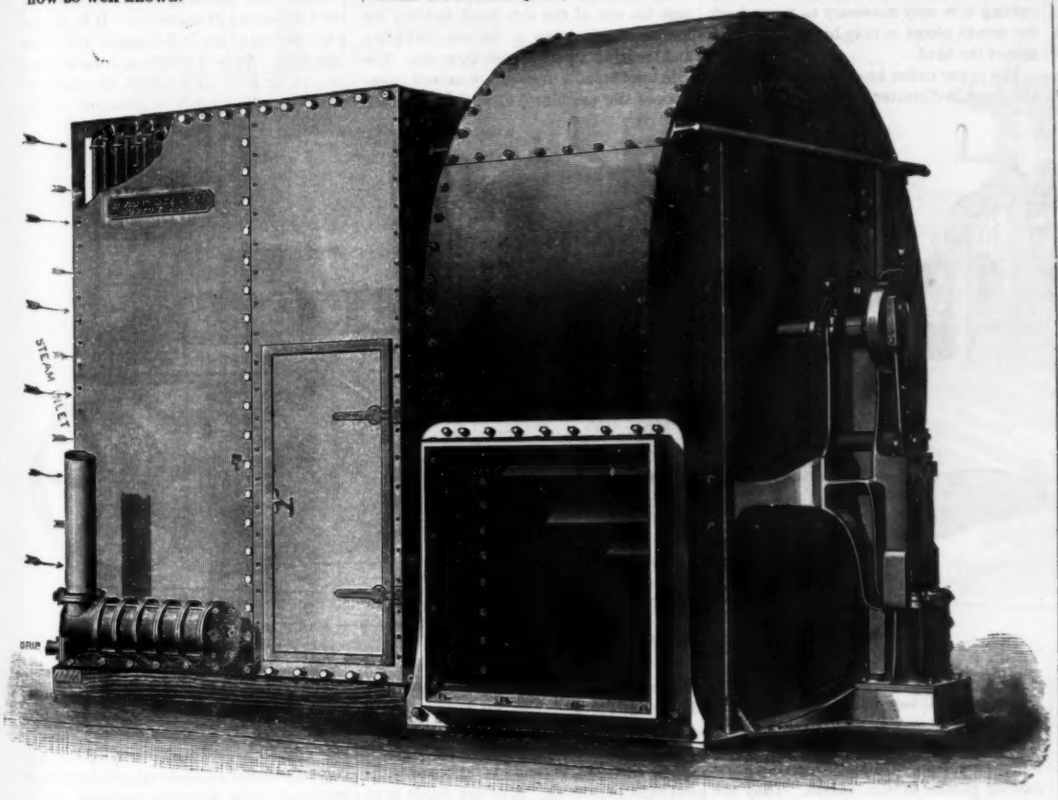


FIG. 1.

This apparatus, first placed upon the market a quarter of a century ago, has been gradually improved and rapidly introduced, until about 5,500 are now in use for various purposes.

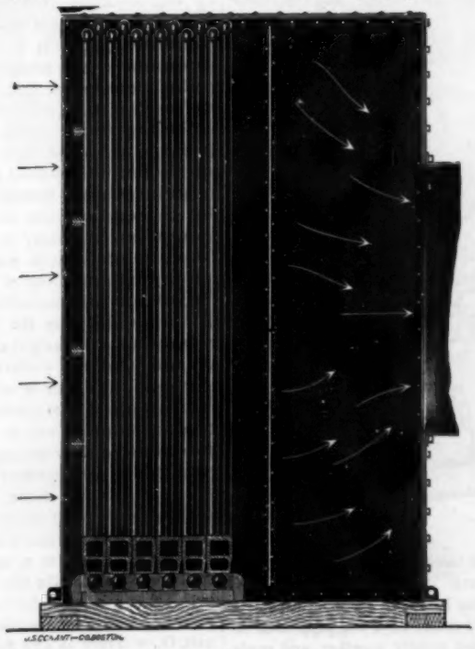


FIG. 2.

The apparatus is a practical embodiment of the principle that a positive circulation of air is necessary to secure rapid and perfect ventilation heating or drying.

The Sturtevant apparatus, although constructed in a great variety of styles to suit all conditions and requirements, always combines the essential elements, a fan and a heater. It is furthermore usually constructed with an engine directly connected to the fan shaft as shown in Fig 1

The fan is designed especially for handling large volumes of air with a minimum expenditure of power, and is constructed almost entirely of steel. The shell and wheel are of steel plate, and the shaft of steel, while all stays and braces are of angle or deck iron.

The engine may be directly connected to the fan shaft or it may be independent, and drive the fan by belt and pulley. The advantage of a special engine for the sole purpose of driving the fan, is evident. The fan may then be run at any time and speed independent of any other source of power. All the engines furnished in connection with these fans are of Mr. Sturtevant's own design and construction, and are fully equal to the trying duty of fan propulsion and continuous running.

Radical changes have been recently made in the heater, which forms a very important factor in the combination. As now constructed the heater proper consists of a series of hollow sectional bases shown clearly in Figs. 2 and 3. Their sides are corrugated so as to fit closely together and allow of no alternate expansion and contraction of the air passing between the pipes. At one end of each section is a circular head (see Fig. 3) divided horizontally by a diaphragm, so that the upper portion is in communication with the steam inlet and the lower with the drip. Steam admitted at the left, through the steam inlet, passes up the series of pipes through the horizontal pipes and down into the space connecting with the drips By this time it has condensed and leaves the heater in the form of water of condensation.

The sides of these heads are planed and fitted, and joints made by copper gaskets, so that when drawn together by the through bolts there is no possibility of leakage. In connection with the sections is bolted on at one end of the group, a header for steam inlet (A) and drip (B). Both of these are large, and allow of the use of exhaust steam without placing back pressure upon the engine. The pipes C and D are respectively exhaust steam inlet and drip, communicating with the outermost section, which has no head and is entirely independent of the remainder of the group. It is designed to utilize the exhaust from the fan engine. The head end of each section rests upon the wrought angle iron foundation of the heater, while the opposite ends are supported by cast iron balls (E), so as to allow for expansion.

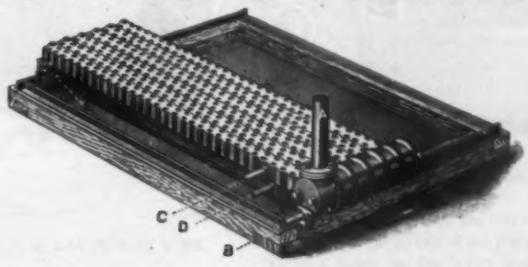


FIG 3.

After continued use of wrought iron pipe Mr. Sturtevant has adopted steel pipe for exclusive use in his heaters, and has it made specially for him of standard weight per foot. The heater is encased in a fireproof steel plate jacket communicating with the inlet to the fan, so that air is drawn by the fan equally across all parts of the heater. The pipes in the sections being set staggering, the air is compelled to take a tortuous course and is brought into intimate contact with every foot of pipe.

In operation for heating and ventilating, the outlet of the fan is connected with a system of ducts or pipes leading to the various parts of the building. In the case of an ordinary manufactory, the distribution takes place through galvanized iron piping, either in the form of upright mains extending to the various floors, and having one or more outlets near the ceiling on each floor, or in other cases horizontal mains extend the entire length of the building just under the ceiling on each floor and the air is discharged through outlets in these. In schoolhouses, churches, theatres, &c., the air is generally conveyed through flues built into the interior walls, the volume and rate of discharge being governed by the register through which the air escapes.

The object always is to discharge the air either at or towards the cold outer wall, but it must be admitted that it takes a great deal of experience in this line to enable any one to lay out a perfect working system.

This system, so well known as the "blower system," possesses many advantages. Above all it is positive. The air being forced into the building must of necessity thoroughly circulate through it, creating perfect distribution of heat and ample ventilation The source of supply of the air introduced being always under control, there can be no opportunity for the presence of injurious impurities.

In the "blower system" a marked saving is made in the amount of heating surface required. The large amount of air passing through the heater causes such a rapid condensation of steam that each square foot condenses, it is said, "from 3 to 5 times as much steam as will be condensed by the same area in an ordinary coil radiator. In other words, only one-third to one-fifth the pipe is required to do the same amount of heating. The saving in the heating surface will usually pay for the fan and engine, so that the system becomes no more expensive than a direct heating system."

The system is worthy of investigation by any one requiring either heat or ventilation. It is now in use in some of the largest manufactories in the country, such as the Pacific Mills, Lawrence, Mass; the new O. N. T. Clark Thread Mill at Kearney, N. J; the Morgan Engineering Co., Alliance, O.; Niles Tool Works, Hamilton, O., &c.

Mr. Sturtevant has recently issued a handsome 80 page illustrated treatise on ventilation and heating, which will be sent to any one requesting it.

Surfacing, Sizing and Matching Machine.

The accompanying cut illustrates a new combined double surfacing, sizing and matching machine, manufactured by the Glen Cove Machine Co., limited, of Brooklyn, N. Y.

This is a stout, solid, well built machine, especially designed for the heaviest kind of work, such as car sills, mill timbers and sub way work. It will finish lumber from ¼ inch thick and 2 inches wide up to 8 inches thick and 24 inches wide on all four sides in one operation. It has eight double geared feed rolls; all the carrying-in rolls, as also the chip breaker, are what are termed "broken" or "sectional," by which arrangement lumber of different or uneven widths or thicknesses may be fed in at the same time. Each set of sectional rolls is mounted in a yoke or frame, which is free to rise and fall, carrying the rolls with it, while the rolls themselves have their separate up and down movement within the frame, each section being driven independently of the other, and all being controlled by their patent parallel hoisting device. The under cutter head is placed at the extreme delivery end of the machine, which position, together with their method of opening the end of the machine, gives quick and ready access to it, for the purpose of setting or sharpening the knives. By loosening two hand nuts the carrying out table with guides and mouth piece attached is dropped down, and by loosening another hand nut the presser bar is raised to a vertical position, when the head is completely exposed in a manner most convenient for the operator. This feature is valuable where grooving or beading or other accurate work is required, or where time in setting up a machine is of value. The knives may be sharpened or changed without removing the lumber from the machine. There are guides on each side of the under cutter head to compel the lumber to run perfectly straight. If it is desired to use long knives for deep cutting it is only necessary to move back the mouth pieces or chip breakers on each side of the head.

The upper cutter head journals are long and large in diameter, and run in improved self-oiling boxes. The head is square and is slotted on all four sides, so that all kinds of solid and sectional knives can be used. It is belted at both ends. The cutter head pulleys are large in diameter, giving great cutting power to the knives. They are not put on with keys or set screws, but are carefully fitted to a true taper and held there by a nut, which method avoids all chance of straining the spindle or throwing the head out of balance, as so often happens when the keys or set screws are used.

The under cutter head is made in every respect like the top one, and both are forged solid from hard steel. The journals are drawn out from the body of the head and are integral with it. This makes the best head in the world, quite different from those that have the journals welded or forced into them, with the consequent liability to work loose or break off.

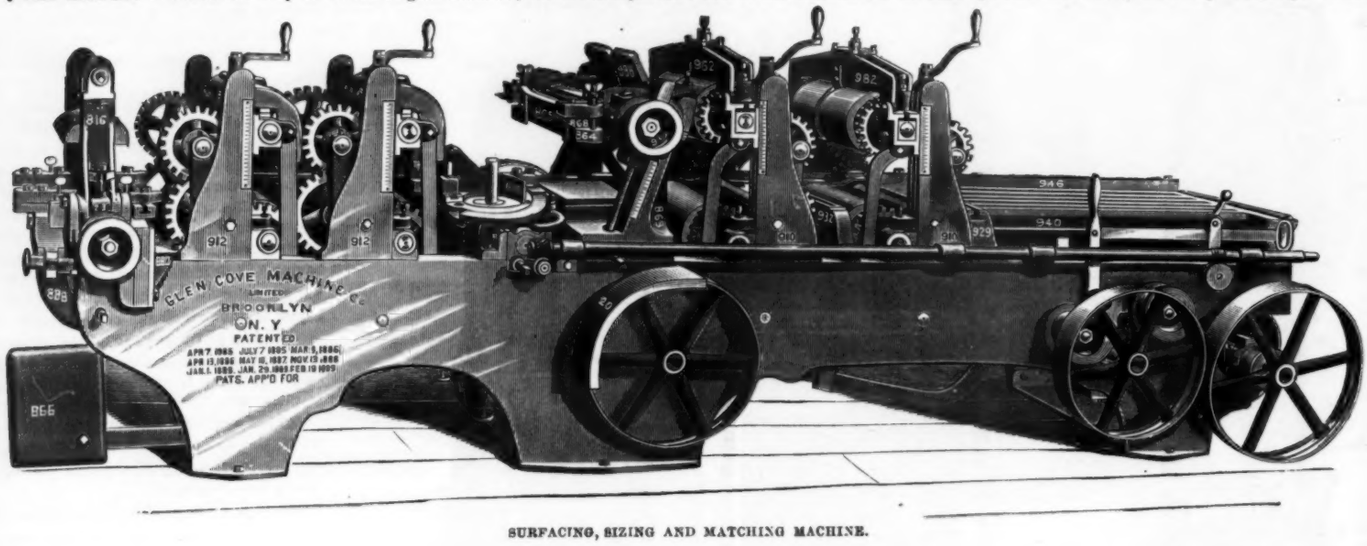
For convenience and accurate setting to thickness, the upper head is raised or lowered ¼ of an inch by each turn of the crank wrench or handle for adjusting the presser bar. The hand screw and check nut are projected far enough from the cutter head to allow the shavings hood to go between them and the knives. This permits adjustment of the presser bar while the machine is in motion without endangering the hands of the operator.

The side heads have their patent weighted chip breaker. The piece on the end of this chip breaker is adjustable for either long or short knives. The presser shoe extends past the cut of the side head, holding the lumber firmly down to the matcher plate and insuring a perfectly straight cut. The side head spindle frames are moved crosswise of the machine ¼ of an inch by each turn of the crank wrench, and have their patent gripping device for holding them securely in position when set. The side head spindles have their new patent self-oiling taper bearings and solid boxes without caps or screws. A center guide is so arranged that two pieces may be fed in at the same time for sizing. The cutter head boxes are yoked together by an improved method, which prevents springing of the boxes and pinching of the journals, and does not weaken the bed under the cutter head by passing through it. The yoke is heavy and strong, and the cutter head bed is thick and solid, making sure of good work. The bar after the cut of the top cutter head and those on each side of the under cutter head are supported in housings, cast solidly together and made adjustable to and from the cutting circle of the head, to permit the use of moulding, beading or rabbeting cutters.

Every gear on the machine can be oiled when running.

All bolts, screws and nuts are made to U. S. standard sizes, and all parts or pieces are numbered for facility in ordering duplicates.

There are other improved features that are not dwelt upon here but which the operator will be quick to discover and appreciate.

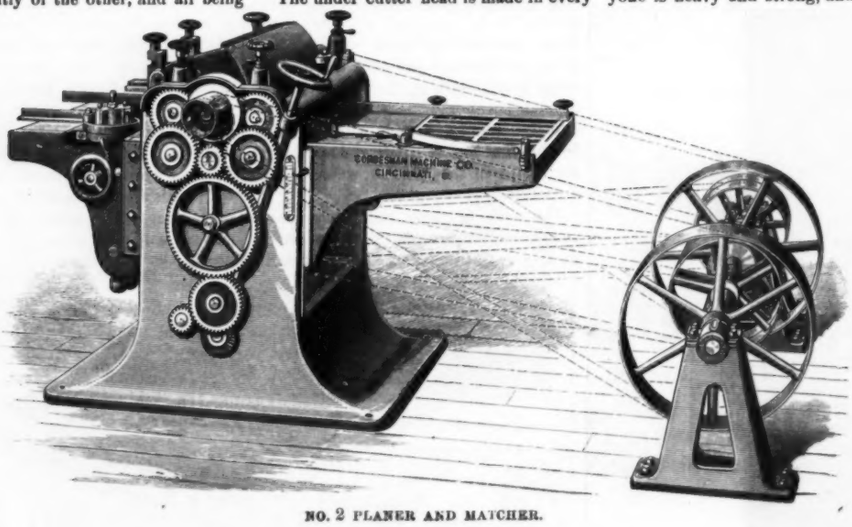


SURFACING, SIZING AND MATCHING MACHINE.

Planer and Matcher.

This cut represents a medium combined planing and matching machine made by the Cordesman Machine Co. It is especially adapted to use in job shops and planing mills. It will surface, tongue, and groove, or joint and rabbet, or when desired the cylinder may be arranged so that flat moulding, beading, siding, and all other similar work can be made to the very best advantage. This machine has ample capacity for all ordinary work, and it will commend itself to all wood-workers by its great strength and compactness. It is built by expert mechanics. The power required to drive it is very little, and the machine throughout is said to be first-class.

The frame is very large, heavy and thoroughly ribbed throughout, and with its large base gives the machine a very substantial floor support. As will be seen by the engraving, the bed is of extra length, and is also cast in one heavy and well-braced piece. It is constructed in such a manner as to produce work that is perfectly smooth and true. The bearings on the side of table, into which the frame is fitted, are four in number, two being on each side, and all 14 inches long. They are provided with inclined gibs, which are fastened by bolts. Should there be any lost motion in the table at any time, the operator can, by simply screwing up the bolts, take up all such wear. Owing to the very accurate fitting of table into the frame, it is almost impossible for the latter to become shaky by the action of feed rolls, and from the weight and jar of lumber thrown upon it while the machine is in motion. The table is raised and lowered by means of a vertical shaft, with a crank placed at the top, in close reach of the operator, and by means of it and the index, which is conveniently placed on the side of the machine, it can be adjusted to suit any thickness of lumber up to seven inches. Where parties desire it, we furnish Shimer heads at a small additional cost, and we also make this machine with both upper and lower feed rolls driven by power. Cordesman Machine Co., Cincinnati, O., will furnish any further information desired.



NO. 2 PLANER AND MATCHER.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises and needing machinery or supplies of any kind will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies.

A New Heavy Lathe.

We illustrate herewith a new improved design of a heavy engine lathe, which, although massive in size, is made with special conveniences for quick and easy handling. The head stock is webbed its entire length and is not weakened by cutting to make room for a reverse plate, as no reverse plate is used, all feeds being reversed in the apron. Each lathe is fitted with a simple and substantial taper attachment which is indexed, and can be set for boring a taper of six inches to one foot. The compound rest has a bearing on the cross slide of carriage of 20 inches, and the handles will pass each other without being removed.

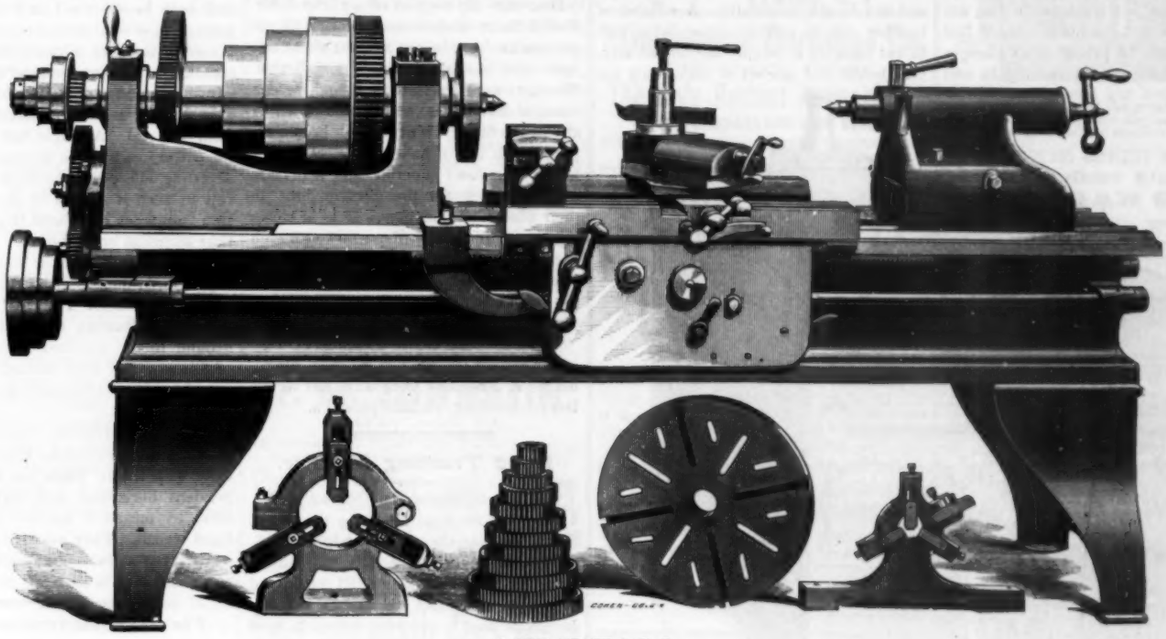
The lead screw is extra large, and is placed directly under the front V on which the tail stock slides. It is inside of the bed, and is covered, taking hold of the carriage in the center of its weight, and directly under the line of strain when cutting screws. The half nuts, which are operated by an entirely new device, are made from solid metal, not babbitted, having planed bearings 10 inches long. The spindles are large, running in long bearings, and can be made hollow if so desired.

The dog shown on the bed may be set and clamped at any point, and will then form an automatic stop for the carriage. This is quite a feature where a large quantity of work of one kind is being done, besides making it very handy to drop the rack pinion out if desired when cutting screws. No worms or worm gears are used, and all feeds will reverse instantly without losing a fraction of a revolution.

The aprons are particularly strong and substantial, can be well lubricated, not at all trappy, and it is claimed will wear a lifetime.

The rest, to turn full swing, is furnished with every lathe. The follow rest is provided with means of adjustment, so that any size shaft within range may be handled without stopping to make collets to suit each and every size wanted. All attachments described above are furnished with every lathe. They are built the following sizes: 17, 19, 21, 24, 27, and 38-inch swing, by Lodge, Davis & Co., Cincinnati, Ohio.

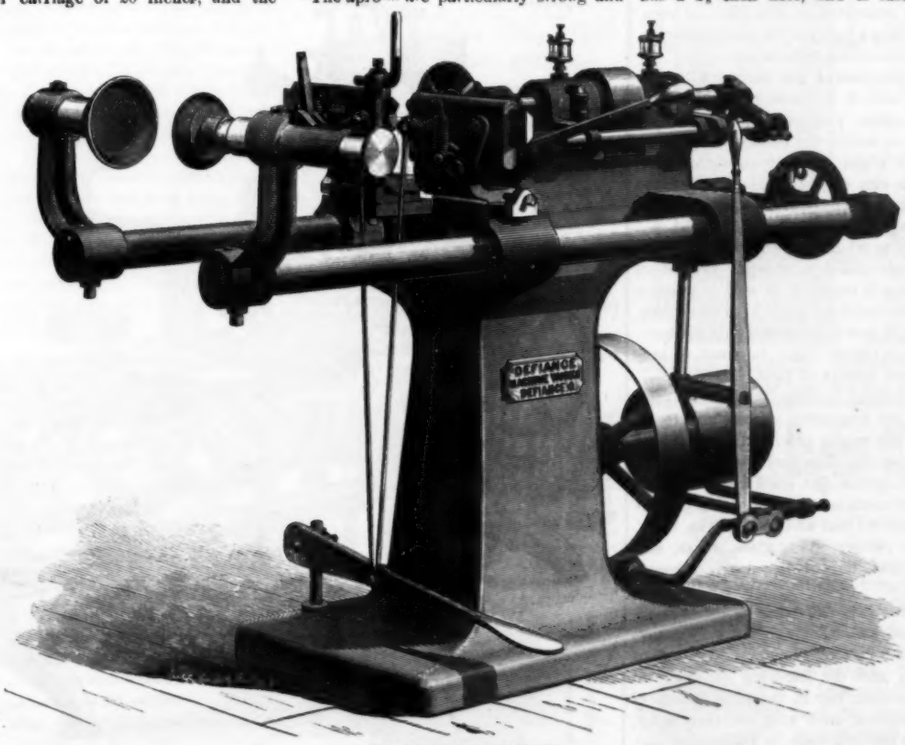
Any further information can be obtained from their home office, or from their branch houses, 42 Dey St., N.Y., 23 and 25 Purchase St., Boston, or corner of Lake and Canal Sts., Chicago.



A NEW HEAVY LATHE.

Wheel-Tenoning Machine.

The accompanying cut represents a new and improved wheel-tenoning machine, manufactured by the Defiance Machine Works, of Defiance, Ohio. The saw for equalizing the spokes has a 2¾ inch hole, and is fastened to the head by counter-sunk screws from the face side. The cutter or hollow auger is inserted into the head through the hole in the saw and is held in position by a set screw. For all tenons up to ⅞ inch diameter cutters, with adjustable knives, are furnished; all over ⅞ inch the cutters are solid. The adjustment for different diameters of wheels is most complete. The parallel bars that hold the chucks slide through the bearings by means of a screw and hand wheel at the rear side of the machine. The tail stocks, spindles and holding cups, have a quick return and are firmly held by friction binders, making all the operations quicker than ever has been done heretofore. The end of spoke is held firmly by the thread, having both hands free to handle the auger and revolve the wheel. For further particulars and price, address the manufacturers.

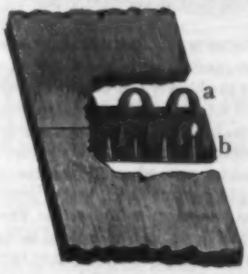


WHEEL TENONING MACHINE.

Belt Hooks.

The accompanying cut illustrates one of Talcott's combination belt hooks with a portion of the belt cut away, after the two ends have been fastened together. The teeth, which in the cut have the appearance of being turned toward each other till the ends meet, were, before the belt was driven down upon them, straight, but assume that position after the belt has been placed upon the hook, which the following directions for adjusting them to the belt will further explain.

The Talcott's Wilson hook is put on the belt the same way as the Talcott's combination hook.



BELT HOOKS.

The object is to put the belt on without taking the curve out of the plate.

The teeth in the latter hook do not clinch as observed at "a" in the cut. The Talcott Wilson hook is being largely used in, and is more appropriate for, cotton mills, while the combination is intended more for machine shops, silk and woolen mills. Mr W. O. Talcott, of Providence, R. I, is the sole proprietor and manufacturer of these hooks.

IF you are thinking of enlarging your mill, factory or mine, or of purchasing machinery of any kind, send us a postal card giving character of machinery desired.

Brooks Gas Process.

The Brooks gas process is now attracting so much attention that a description of it will be of interest to our readers. The inventor has, it is said, reached what has been so long sought for, that is, "a gas system which will convert crude oil wholly into a fixed or non-condensible gas, not only for a perfect illuminant, but a fuel gas, which can be produced so cheaply that it will compete successfully in cost with coal, as well as save the labor and inconvenience of handling coal and ashes.

A SINGLE BENCH OF THE BROOKS GAS PROCESS.

Among the advantages of the Brooks gas process are the use of crude petroleum, purity, clearness and brilliancy of the light, high illuminating power, non-condensibility, safe, low cost of apparatus, cheapness of production.

The works in all the apparatus are exceedingly simple and of low cost The bench may contain any number of sets of retorts up to twelve, according to the amount of gas required, Each set of retorts has four sections, passing horizontally through the furnace, and so arranged that a strong heat is constantly passing over them.

A boiler is required to supply steam for the gas, and to run a small engine which drives the blower. A cooler or condenser is used for cooling the gas before it passes into the holders. No scrubbers or washers are required, as this gas is claimed to be absolutely pure when it leaves the retorts. The gas is made from crude petroleum, just as it comes from the wells. The oil is stored in tanks, and from these tanks runs through small pipes directly into the front end of the first section of the retorts, where it meets the steam which is forced through another pipe from the boiler, when it is all converted in a vapor or simply a mechanical mixture. It then passes into the next section and meets the desintegrators, where chemical action begins to take place, and is forced through one disintegrator after another, with constant impingeing against the sides of the retorts, until it is passed through all the disintegrators and sections and into the regenerative chamber, where the chemical union becomes complete, and is then a fixed or non-condensible gas. It now passes with the right manipulation through coolers into the holder, and is ready to pass through the mains, a perfect illuminating gas it is said of exceeding brilliancy.

The low cost of the whole plant for this system will, it is stated, allow its use for supplying towns which are not of sufficient size to make gas works pay with any other process. A cheap plant can also be built to furnish gas for country residences, churches, schools, houses, etc. A large or small bench may be erected; one of the small size will produce 5,000 feet of 24 candle power illuminating gas per day, and can be run constantly. A number of benches can be erected, thus giving sufficient capacity to supply the largest city. One holder and one set of mains only are required for both the illuminating and fuel gas, as the illuminating gas, by the right apparatus and manipulation, is converted at the place of combustion into a fuel gas for manufacturing, closely resembling natural gas.

The illuminating gas produced by this system costs, it is claimed, less than gas by any other process, and contains no deleterious matter nor ammonia, and there is but a slight trace of carbonic oxide, which is one of the great objections to water gas. The light from this gas is exceedingly white, pure and brilliant.

In towns where gas companies are already established a cheaper method of production is required, as well as a better and more brilliant gas. In other words, a gas must now be produced that will compete with electric light in point of brilliancy and quality of light.

The Brooks process will, it is said, enable gas companies successfully to do this, as old works can readily be altered to this system. The fuel gas is made by the same system, but costs less than one-fourth as much as the illuminating gas. It is suitable for iron and steel works, brick, lime or pottery kilns, glass works, salt works, stationary boilers and domestic heating.

As a fuel it is claimed to be second only to natural gas. There is not only a saving in the cost of the plant, the cost of running and the handling of coal and refuse matter, but in the manufacture of many articles, such as glass, tiles, brick, etc., the product made by gas is, it is said, superior to that made by coal. The heat from this gas is intense, but it can be controlled by our apparatus and at any time forced wherever it is required.

The manufacturers say the Brooks gas process commends itself to the public for the inexpensiveness of the plant, simplicity of production, ease of management, reliability, freedom from hurtful elements, high candle-power, perfect brilliancy of its light, economy, and practicability and the purity and intensity of its heat.

The following letter shows how it is esteemed:

OFFICE OF CHIEF BURGESS,
DR. L. T. BREMERMAN,
DOWNINGTON, PA., April 4, 1889.

H. J. FILLMAN, Esq., Bordenton, N. J.:

Dear Sir—By request of my friend, Mr. Duff, I desire to state that the Brooks gas process has been in use here for about one year, and has given entire satisfaction. We light our streets with it, and we can boast of having as well-lighted town as any in the State. Where it has been compared with the incandescent electricity it has proven itself superior, and many are substituting it for the electric light in their places of business. It is a cheap light, and the company have met with such encouragement here that they are about to enlarge their plant and arrange to supply gas for heating as well as illuminating purposes. Very sincerely,

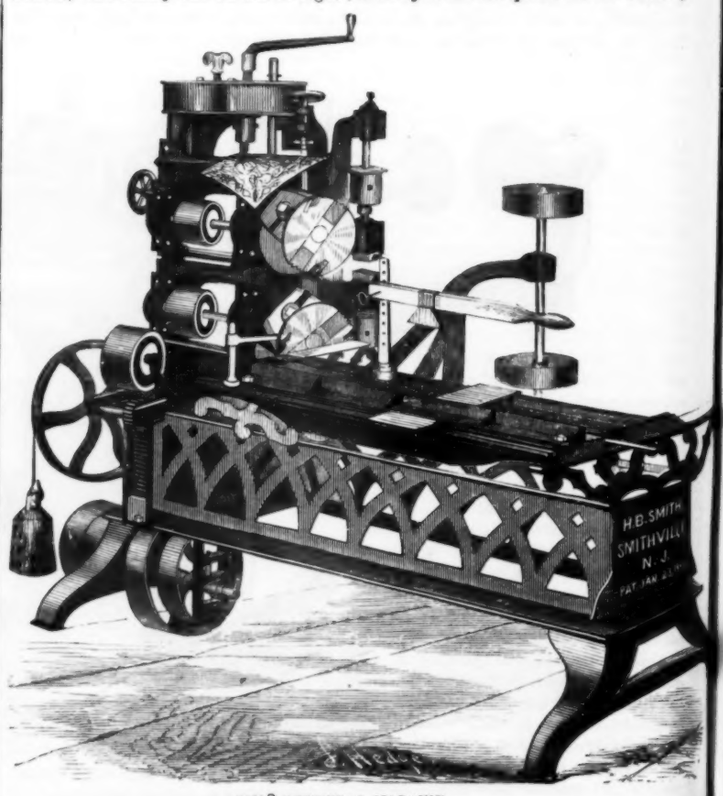
L. T. BREMERMAN, M. D.

For further information address Illuminating & Fuel Gas Company, 920 to 925 Drexel Building, Philadelphia, Pa.

No. 2 Tenoning Machine.

The accompanying cut shows a No. 2 tenoning machine made by the H. B. Smith Machine Co., of Philadelphia.

This machine is especially adapted for tenoning door, sash and blind work, and in general all cabinet and joinery framing. It can be used for cutting tenons in hard or soft wood any required thickness, and from ¼ inch to 6½ inches in length, and by passing the material through the machines twice, tenons 8 inches in length may be worked. The shoulders can be cut at the same or different distances from the end; may be square, inclined or moulded as desired; and finally can be cut at right angles or otherwise with the edge of the stick.



NO. 2 TENONING MACHINE.

The manufacturers say the machine is well made, exceedingly simple, perfectly accessible in all its parts, and being constructed entirely of metal, is strong and durable. Cutter shafts are of steel, run in long babbitt boxes, and by simple effective means are guarded from oscillating endwise. The vertical cope-shafts are provided with brass steps. The horizontal head-stocks are gibbed to a vertical guiding frame and are adjusted by means of independent screws, for tenons of any desired thickness.

The heads being thus properly set, the screws may be instantly geared together and both heads raised or lowered simultaneously, so changing the position of the tenon on the stick without altering its dimensions. The upper head stock is also adjustable longitudinally to permit the shoulders to be cut at uneven distances from the end. A single belt drives both the cutter heads at the same speed. A self-adjusting idle pulley operates against this belt to keep it always at the proper tension and, when once laced it needs no further attention or alteration.

Cutter heads are either single 3½ inches in length, or double with 6½ inches length, as may be ordered. The knives are formed to have a drawing cut, and are readily ground to the required shape. Sections of fine saws are used instead of spurs to cut the square shoulders, and rarely require attention.

The copes or scribing tools are attached to the main headstocks and move vertically with them. Each has also an independent horizontal and vertical adjustment by means of suitable screws with hand wheels. They are driven from the auxiliary vertical counter-shaft attached to the machine in the rear.

The MANUFACTURERS' RECORD *solicits correspondence relating to the manufacturing, mining, lumbering and all other material interests of the Southern States. Letters on any phase of Southern development, facts as to the resources of this section, notes of new enterprises to be started, etc., etc., will all find a welcome. Reaching so many capitalists in all parts of the United States seeking profitable investment in the South, the* MANUFACTURERS' RECORD *offers an excellent chance for the people in that section to place the advantages of each locality before those likely to be interested.*

TRADE NOTES.

IMPROVED RAILWAY CROSS-TIE.—A. K. Hoffmeier, Lancaster, Pa., issues a pamphlet descriptive of his improved railway cross-tie, which he claims is the best in use, as it is scientific in construction, uniform in size and shape, and perfect in operation.

HUGHES STEAM PUMP CO, of Cleveland, O., wr te us as follows: "We are making some quite large pumps for water works, and some hydraulic plunger pumps for steel wo ks, the latter being a recent design just brought out by us. The outlook for business is very fair."

IRON AND STEEL ROOFING —W. G. Hyndman & Co, 52 and 54 East Second street, Cincinnati, Ohio, manufacture first-class iron and steel roofing, corrugated and crimped; also iron and tin shingles. The firm have been engaged in business for thirteen years past, and have many testimonials certifying to the excellence of their goods.

A POPULAR SOUTHERN SUMMER RESORT. Mr. R. B. Raney, the well-known proprietor of the Yarborough House, Raleigh, will this summer take the management of the Atlantic Hotel, at Moorehead City, N. C. No more delightful resort is to be found in the entire South, and it is safe to predict that Mr. Raney will enjoy a successful season.

A GOOD BUSINESS CHANCE.—A. Culbertson, of Macon, Ga., wishes to meet a party who would be willing to invest about $2,500 in a canning establishment in that city. Macon is one of the most progressive of Southern towns, and the materials for supplying a fruit and vegetable cannery are within ready reach. A cannery at Macon would unquestionably, with good management, prove a success.

AMONG the larger concerns who have recently adopted the Reliance safety water columns, manufactured by the Reliance Gauge Co., of Cleveland, O, are the Salisbury Manufacturing Co., Salisbury, Md; the Gorrie Ice Manufacturing Co., Savannah, Ga.; the Collins Co., Collinsville, Conn.; S. W. & E. D. Springer, South Creek, N. C; the Hill Clutch Works, Cleveland, O., and the Brooklyn line of electric railway, Cleveland, O. The Reliance Co. also received a second order from Haldeman, Grubb & Co., of Chickies, Pa., who had been using these safeguards for over a year, and a third order from the Walker Manufacturing Co., of Cleveland, who bought their first column about three years ago. They are sold on their merits and seem to be giving remarkable satisfaction.

THE STANDARD DRY KILN CO.—The great demand for seasoned lumber long ago compelled the adoption of artificial means for curing timber, instead of waiting for time to accomplish the process. Among the best machinery for accomplishing this purpose is the Standard hot-blast apparatus and lumber dry-kiln, manufactured by the Standard Dry-kiln Co., 1224-1230 Main street, Louisville, Ky. For this apparatus the company claim exceptional merits. It consists of a heater and a blower of very simple construction, but which give the best possible practical results. The blower and heater are placed contiguously, and are built of the finest materials and with the best workmanship. The blower may be operated either by a direct action vertical engine or by a belt from a horizontal engine, or any other source of power. It can certainly be said of the hot-blast system that from every consideration of practical efficiency, economical results and sanitary conditions, it is, perhaps, the best yet devised. One important consideration is that either live or exhaust steam may be used, while the latter causes no back pressure on the mill engine. The apparatus is, moreover, simple, durable and cheap.

LUMBER PROPERTY AT A BARGAIN.—W. D. McWilliams, Daleville, Miss., advertises in this issue a very desirable saw mill property with outfit and 2,000 acres of fine pine lands. The lumber lands of Mississippi are among the most desirable in the country, and the property in question is undoubtedly a bargain.

INCREASED business and the necessity of more ample accommodations have caused B. F. Sturtevant, manufacturer of blowers, heating apparatus, engines, etc., to move his New York branch office to 91 Liberty street, where he will be better able to meet the trade. He has also recently established a branch office at Portland, Ore., under the management of Mr. O. C. Gore, who will handle the rapidly increasing trade of the Pacific slope.

WHICH? BUTTER OR CHEESE.

If either, or both, send for J. S. CARTER'S Illustrated Catalogue, which gives full information of latest and best method and appliances for making Cheese or Butter, from the largest factory to the smallest dairy. Carter's Cream Gathering System of Butter Making is a Success. JOHN S. CARTER, Syracuse, N. Y.

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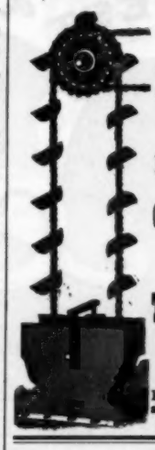

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A PERFECT SIGHT FEED, Without the use of Glass Tubes.
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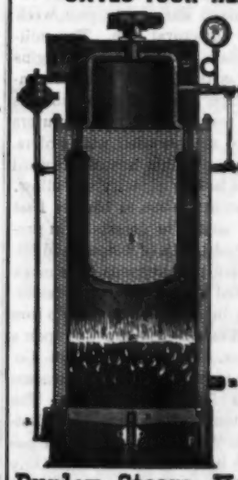
The Osborn
COTTON GIN
Lubricator.
PATENTED.
Consists in the application of oil to cotton being ginned. The quality of the cotton is thereby improved. The friction of the ginning operation is reduced. There is less breakage of the fibre, and consequently a greater average length of staple. The gin saws are prevented from gumming, gin cutting is obviated and the liability of fire from friction is diminished. The above are some of the advantages resulting from the use of this improvement. Territory for sale. Agents wanted. Apply to
C. H. MERRY,
YAZOO CITY, MISS.

Good Steam Heating
SAVES YOUR HEALTH.



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This Wheel is strong and durable. Excelled all other wheels in the great trial tests. Is in use all over the nation. I also make a specialty of
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HOT BLAST CUPOLA,
(patent March, 1884,) and New Smokeless & Automatic Feed Boiler (pat. 1886 in U. S.) Correspondence solicited for plans of foundries and the economical working of cupolas, the saving of fuel in melting iron and steel, and in the production of steam. Address VICTOR COLLIAU, Mechanical Engineer & Architect, 287 JEFFERSON AVE., Detroit, Mich.

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For every duty. Best Materials only used. Fully guaranteed and tested. It will pay you to write for prices.
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PERFORATED METAL FOR COTTON SEED OIL MILLS RICE MILLS MINING SCREENS &c
THE ROBERT AITCHISON PERFORATED METAL CO.
76 Van Buren St. Chicago Ill.

THE MARKETS.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, May 8, 1889.

Not a single important event has transpired in the iron trade during the past week. Summer buyers are purchasing as carefully as they did at any time since the opening of the year. Advices from important markets show that the opinions entertained a month ago are still adhered to, particularly by large consumers. The smaller buyers are, as usual, waiting till the larger concerns make a start. A few large sales in crude iron would undoubtedly bring out a great many of the smaller producers, but there is nothing whatever in the situation to warrant the purchasing of a large amount of iron for the summer and fall. Quotations remain where they were. Now and then a sale of a few hundred tons of foundry is made at what appears to be a concession from the quoted rates, but this is the only thing to indicate that the market is unsettled. Special brands of iron are scarce, that is to say, the production is just about equal to the market requirements. Nearly all users of special brands have running contracts, and at prices to be named at date of delivery These delivery quotations to-day are $18.50. A great deal of unnecessary talk has been indulged in regarding a break in pig iron prices, and it is said that the Thomas Iron Co. will start it. If this company has sold as much pig iron as its representatives claim have been sold, there would appear to be no occasion of reducing prices, and there is very strong cause for advancing them, as the understanding is that the price of their irons are to be fixed at date of delivery. It is impossible to understand why this company or any other should be interested in marking prices down. The fact of the matter is that all pig iron makers are pursuing a policy that is most likely calculated to harden prices. That is, they are keeping down production to the actual market requirements. This is especially the case in Pennsylvania. The reduction there in coal and tolls has increased output and the agents report it impossible to make large contracts for the future. Southern iron is being shipped into Northern markets but rather slowly Last week a few inquiries were received, but the Alabama makers replied giving old quotations and hence there is no new business to report One serious drawback is that the bar mills West and East are booking very little new business. Forge iron is ruling as usual at $14 50 to $15 25. Very little No. 2 can be had at less than $16.50. Stove manufacturers are not inclined to buy more iron than they actually need for the fall. Pipe iron makers are looking about for supplies, but they also will purchase barely enough. In fact our advices from every quarter show that consumers are buying and contracting for only what iron is absolutely needed. It was stated in some quarters as long ago as two months that during the spring large buyers would cover six to eight months ahead. This statement was made on the supposition, and in many quarters on the belief, that the summer demand would harden prices on crude and finished material. This hardening tendency is not apparent, and the activity which we anticipated two months ago is not in sight. No. 1 foundry ranges all the way from $17.50 to $18.50. A few Southern makers are soliciting orders in Western and Northwestern markets, but as yet they have not had the success among new buyers they think their iron deserves. In Louisville the market is unsettled. Buyers when solicited to purchase ask what concessions can be made. Southern coke foundry is selling at $14 75 to $15; Southern gray forge $14; Southern car-wheel irons are $18.50; Hanging Rock cold blast irons $21 to $22.50. In markets farther West there is a sluggishness which is not easily explained, excepting we assert that buyers there are well supplied and have no belief in an active summer demand. Advices from Chattanooga intimate that there is a steady consumption and a heavy distribution going on, especially in Northern markets. No advance in prices is looked for. Cincinnati markets are dull for all kinds Mahoning Valley irons $16.50. At Cleveland there is an active movement in lake ores, as is usual at this time of the year. Sales last week were 325,000 tons. Sales this week will probably upset this figure. The average quotation is $5.25. Eastern furnaces have been very large buyers.

From all bar iron markets the news comes that there is only a sort of hand to mouth selling and that buyers are not disposed to purchase because manufacturers are unsettling the market by offering concessions, and purchasers are naturally waiting to see when they will reach bottom. At Philadelphia best refined is quoted at $1 90. Mills are not making much more than half time. In a few days the matter will be settled whether there will be a suspension of iron makers in the West during the summer. The wages question is still agitating Eastern iron markets, and a settlement will likely take place this week. Car builders are purchasing very little material and are booking no more than sufficient business to keep them running in their present slack way. The nail trade in Western markets is more active than Eastern, and as a rule better prices are realized. At Pittsburg quotations are $1.85, with the usual discounts for cut nails. Wire nails $2.20. In Chicago steel nails are $2, and wire nails $2.40, with five cents off for larger lots. A few large orders were booked during the past week for plate and structural iron. The mill-owners complain at the scant margins allowed, but as there is an immense capacity no escape from low quotations is probable this season. The manufacturers of barbed wire are crowded with orders, and deliveries are being hurried forward with as fast as factory capacity will allow. There is no accumulation of blooms East or West, and an active demand is in progress in all kinds, both of blooms and billets. In Eastern Pennsylvania mills muck bars are quoted at $26.50, with considerable business in sight at $27. Skelp iron is 1.75 cts. Western makers count upon a large business. The Standard Oil Co. have about concluded their arrangements for large lots of wrought iron pipe. The slight reduction in pig iron rates in Eastern Ohio and Western Pennsylvania has apparently no influence on business. Only a few orders for steel rails were booked last week. Railroad builders seem uncertain what to do. There twenty or thirty enterprises under way which if pushed would make rails active. Another reason for the uncertain feeling is that a cut in Western Pennsylvania markets is maintained. It is even intimated that rails will be taken at less than $26. It is stated that business has been done at less than $26 at Pittsburgh. The new Alleghany company and the Carnegie people are locking horns. It is said that they will soon do so on a large amount of Western business. Some parties intimate that rails will be sold at $25 within the next sixty days. Rail-making appliances have been considerably improved Advantages thereby conferred, it is said, will lead to some greater reductions than have yet been heard of.

Old rails are wanted in large quantities, but at prices brokers say cannot be met. At Philadelphia $22 is offered. Consumers are willing to stock up at that figure. The tin plate market is extremely quiet. This is rather strange, considering the fact that the large consumers of tin plate have very little stock in hand. Nothing has yet occurred in tin. The consumption since January 1st 4,700 tons against 3,500 tons same time last year. The daily cablegrams concerning copper show that there is a still more complicated condition of affairs on the other side and more trouble ahead Warrants have been issued for the arrest of the responsible parties. It is thought that a very large amount of copper will be thrown upon the market to sell for what it will bring. Lead has slightly advanced. A hearing is to be had in the Treasury Department on the 15th inst., and it is expected that the ruling will be overset which now covers the importation of Mexican ores. These ores coming in from there contain a larger share of their value in silver. A good many Western railroad companies are interested in the transportation of these ores and will likely make a good fight in order to retain their traffic.

HARDWARE.

General dullness is the universal complaint in the hardware trade and it will, dealers say, likely continue so until the opening of the fall season. Prices remain the same and no changes are probable until July 1. The jobbers are very timid, and manufacturers are unable to make further concessions. While copper rivets and burs are apparently held very firm, the indications point to a very low price in these goods very soon.

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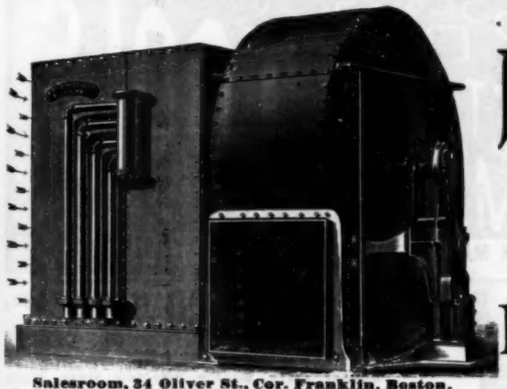

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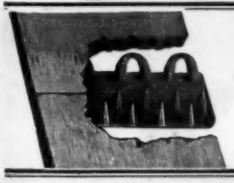

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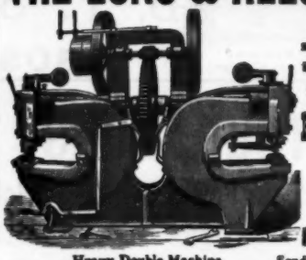

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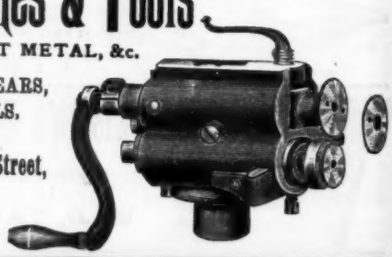

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Conestoga ..... dis 60&10 %
Coal Hole—Griffiths' ..... dis 40 %

COCKS, BRASS.

Bushing, new list ..... dis 50 %
Globe, new list ..... dis 50 %
Plain Globe ..... dis 50 %
"In and Out, new list ..... dis 50&10 %

COPPER NAILS.

Parker's ..... dis 25 %
Wilson's ..... dis 25&10 %
Lagon & Sparkman ..... dis 25 %
Livingston Bell Co. ..... dis 25 %

COMPASSES, DIVIDERS, &c.
Compasses .... dis 70&10 %
Calipers .... dis 70&10 %
Dividers .... dis 70&10 %
Cook's Pencil .... dis 10 %

COOPERS TOOLS.
Bradley's .... dis 15@20 %
Barton's .... dis 20 %

CROW BARS.
Cast Steel .... ℔ 3½c

CURLING IRONS, &c.
½, ⅝, ¾ in., $1.80, 2.00, 2.50 .... dis 10 %
Curling Tongs .... doz $3.65, dis 10 %
Pinching Irons .... doz $7.50, dis 20 %

CURRY COMBS.
Fitch's new list .... dis 50&10 %
Hotchkiss, Novelty, new list, July, 1880 .... dis 25 %
Hotchkiss, Excelsior Superior Champion .... dis 25 %
Lawrence, "Perfect" .... dis 25&10 %
Rubber .... doz $10.00, dis 25 %
Sweet & Clarke .... dis 50&10 %
Lusters .... dis 25 %

CURTAIN PINS.
Silvered Glass .... net
White Enamel .... net

CUTLERY.
Association (Table) .... net
Naugatuck Cutlery Co .... list net
Excelsior Knife Co .... net
Wilson's Butcher and Shoe Knives .... dis 30 %
Ames' Shoe Knives .... dis 20 %
Wm. Rogers Mfg. Co., Plated Cutlery .... Net

DOG COLLARS.
Embossed Gilt .... dis 30 %
Leather .... dis 40 %
Brass .... dis 40 %

DOOR SPRINGS.
Torrey's Rod, regular size .... doz., $1.30
Gem (Coil): List, April 19, 1886 .... dis 10 %
Standard—10 doz $1.25; 9 doz $1.75 .... dis 60&10 %
8 doz 2.50; 6 doz $3.50 .... dis 60&10 %
Hercules .... dis 50&10 %

DRAWING KNIVES
Middlesex Mfg. Co .... dis 75 %
Cressman's No. 1 .... dis 65&5 %
Nobles Mfg. Co .... dis 15 %
Bradley's .... dis 35 %
Adjustable Handle .... dis 20 %
P. S. & W .... dis 75 %
Douglass .... dis 75 %

DRILLS AND DRILL STOCKS.
Blacksmiths' .... $1.65 net
Blacksmiths' Self-Feeding .... each, 7.50, dis 20 %
Breast, P. S. & W .... dis 40 %
Breast, Wilson's .... dis 30 %
Breast, Millers Falls .... each, $3.00, dis 25 %
Breast, Bartholomew's .... each, $2.50, dis 25&10 %
Wilson's Drill Stocks .... dis 10 %
Automatic Boring Tools .... $1.85 each
Manneer Drill Mfg. Co's—
Model Bench Drill .... $10.00, dis. 30 %
XXX Post Drill .... $26.00, dis. 30 %

EGG BEATERS.
Dover .... doz $2.50, dis 2 %
Acme .... gross, $9.00
Victoria .... gross, $10.00

EMERY AND EMERY PAPER.
Regular numbers .... ℔ 6c
Flour and F. F .... ℔ 4c
B. & A. Emery Paper .... dis 20 %

ENAMELED AND TINNED WARE.
Kettles .... dis 70 %
Sauce Pans .... dis 50 %
Tinned Sauce Pans .... dis 50 %
Escutcheon Pins—Brass .... dis 50 %

ESCUTCHEONS.
Door Lock .... Same discounts as Door Locks
Brass Thread .... dis 60 %
Wood .... dis 25 %

FAUCETS.
Fenn's .... dis 40 %
Fenn's Cork Stops .... dis 33⅓ %
Star .... dis 60 %
Frary's Patent Petroleum .... dis 40 %
West's Patent Key .... dis 50 %
Anchor Lock .... dis 45 %
Metallic Key, Leather Lined .... dis 55&10 %
Cork Lined .... dis 70 %
J. Sommer's Best Metallic Key .... dis 40 %
J. Sommer's Cork Lined, 1st quality .... dis 50 %

FILES.
E. M. Boynton's .... new list, dis 25 %
Western File Co .... dis 60&10 %
Butcher's .... $4.50 to £
Moss & Gamble .... $4.50 to £
H. Disston & Sons (new list) .... dis 60 %
Heller Bros.' Horse Rasps .... dis 50&10&5 %
Nicholson's .... dis 60&10 %
New American .... dis 60&10 %
Union File Co .... dis 60&10 %
Stubs, new list .... $7.50 to £, 25 % off

FLUTING MACHINES.
Knox, 4½-inch Rolls .... $3.50 each } .... dis 35 %
Knox, 6-inch Rolls .... $4.00 each }
Knox, 8-inch $6.50
Eagle, 3½-inch Roll .... $2.15, dis 35 %
Eagle, 5½-inch Roll .... 2.85, dis 35 %
Crown, 4½-in., $3.50; 6, $4.00; 8, $6.50 each .... dis 35 %
Crown Jewell .... 6-in., $3.40 each .... dis 35 %
American, 5-in. $3; 6-in., $3.40; 7-in. $4.50 each dis 35 %
Domestic Fluter .... $1.50 each, net
Geneva Hand Fluter, White Metal, doz $10 dis 25 %
Crown Hand Fluter, Nos. 1, $15; 2, $12.50; 3, $10.50; 4, $8.25 doz .... dis 35 %
Combined Fluter and Sad Iron, doz $15.00, dis 30 %

FORKS.
Iowa Farming Tool Co's .... dis 65&5 %
Remington .... dis 50&10 %
Sheble & Klemm .... dis 60&10 %

FRY PANS.
Burnished list as follows .... dis 70 %

No	0	1	2	3	4	5	6	7	8
doz	$3.00	3.75	4.25	4.70	5.25	6.00	7.00	8.00	9.00

GAUGES.
Marking, Stanley's .... dis 60 %
Marking, Chapin's .... dis 60 %
Wire .... dis 20&10 %
Wire, Disston's .... dis 20 %
Wire, Wheeler, Madden & Co .... dis 10 %

GIMLETS.
Nail and Spike .... dis 50 %
"Eureka" Gimlets .... dis 40&10 %
"Diamond" Gimlets .... dis 40&10 %
Double Cut, Shepardson's .... dis 45 %
Double Cut, Hartwell's .... dis 50 %
Double Cut, Ives' .... dis 50&10 %
Double Cut, Douglass' .... dis 40 %
"Reel" .... gro. $12.00 dis 25 %

GLUE POTS.
Tinned and Enameled .... dis 35 %
Family, Howe's "Eureka" .... dis 40 %
Family, L. F. & C.'s "Handy" .... dis 40&10 %

Cliff's R. H. Wagon Springs.

1888.

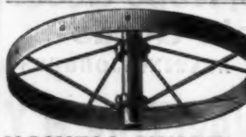
The Best Bolster Spring on Earth.

SEND FOR PRICES.

TITUS & BABCOCK,

Sole Agents.

ROCHESTER, N. Y.



METAL WHEELS
FOR
Agricultural Implements.

HOWELL WHEEL CO. COVINCTON, KY.

A New Wire Fence Tool

Save Staples, Time and Trouble, and secure your fence wire by using

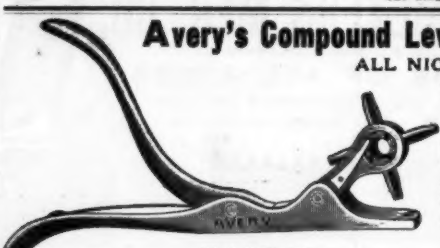
VAN DUZEN'S STAPLE HOLDING IMPLEMENT.

Holds a staple securely, and insures its being evenly driven in any direction without bending or breaking. Indispensable in erecting wire fencing, etc. Cheap and durable. Recommended to every hardware dealer and farmer by the manufacturers.

The Binghamton Hydraulic Power Co., Binghamton, N. Y.

Avery's Compound Lever Revolving Punch,

ALL NICKELED.



Nickel Plated.

THE LEVERAGE IS AS 12 POUNDS TO 1 OVER THE ORDINARY MAKES.

The strongest, simplest and most practical Revolving Punch yet offered to the trade.

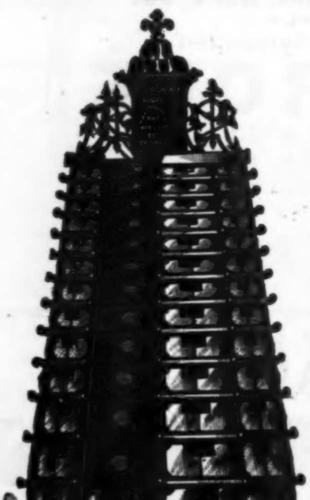
A few pounds pressure on the handles will generally be found sufficient to do effective work.

W. G. Avery Mf'g. Co.

CLEVELAND, O., U. S. A.

WESTPHAL'S IMPROVED

Revolving Screw Bolt and Shot Cases.



Advantages in Using.

1st—It is impossible to mix the different sizes of screws, bolts or shot. This is a very important point, and cannot be claimed in any other construction for holding these goods.

2nd—Only those behind the counter have access to the contents of the cases, thus preventing customers from helping themselves.

3d—The condition and amount of stock is shown at a glance.

4th—They will save much space and many feet of shelving in any store.

5th—Any size can be found instantly.

6th—In addition to their great usefulness they will ornament the counters of any store, for in these cases, utility, strength and beauty are combined.

Those who have used them say they would not part with them for many times their cost.

Improved Fevolving Screw Case. Made Entirely from Iron and Glass.

SEND FOR ILLUSTRATED CIRCULARS.

—MANUFACTURED BY—

SCHENCK'S ADJUSTABLE FIRE BACK CO.

(Successors to HENRY WESTPHAL),

94 Market Street, Chicago, Ill.

This advertisement appears every fourth week.

WIER & WILSON

DIRECT REPRESENTATIVES:

HUBBARD & CO. - - - Axes, Shovels, Hoes and Saws.
AMERICAN SCREW COMPANY, - Screws, Bolts, Wire Nails, &c.
A. FIELD & SONS, - - - - Tacks, and Nails.
WHEELING HINGE COMPANY, - Wrought Goods, Butts, &c.
OLIVER BROTHERS & PHILLIPS, - - - Heavy Hardware.
L. D. FROST & SONS, - - Philadelphia Carriage Bolts.
J. P. TOLMAN & CO. - - - - Braided Sash Cord.
JOHN SOMMERS' SON, - - - - - Faucets.
NICHOLSON FILE CO. - - - - - Files
HARTFORD HAMMER CO. - - - Hammers and Sledges.
THE HENRY C. HART MFG. CO. - Screen Frames, Lull & Porter, Blinds, Spring Hinges, &c.
SHEBLE & KLEMM, - - - - - - Forks.
HOLROYD & CO. - - - - - Stocks and Dies.
BAKER CHAIN & WAGON IRON MFG. CO. - Wagon Hardware, Links, Rings, &c.
CLARKE BROS. & CO., - - - - - - Bolts, Nuts, etc.
BRANFORD LOCK WORKS. WHITE MOUNTAIN FREEZER CO.
DRUID FELT CO., - - - - Fabric Roofing and Paint.

OFFICE No. 14 West German Street - - BALTIMORE, MD.

GRINDSTONE FIXTURES.
Sargent's Patent .... dis 70&10 %
Reading Hardware Co .... dis 33⅓ %

GUN WADS.
Eley's B. E. wads, 11 upwards $1.75
" " " 9 and 10 .... 2.00
" " " 7 " 8 .... 2.25
" P. E. " 11 upwards 2.00
" " " 9 and 10 .... 3.25
" " " 7 " 8 .... 4.48

HAMMERS.
Maydole's .... dis 25 %
Mech'c Tack, Nos. 1,2,3, 1.26, 1.50 and 1.75 .... dis 30 %
Warner & Noble's .... dis 20 %
Kip's or Selsor's .... dis 30 %
Yerkes & Plumb .... dis 40 %
Hartford Hammer Co's New List—
Nail Hammers .... dis 40&10 %
Hammers .... dis 40&10 %
Sledges .... dis 60&10 %
Mason and Spalling Hammers, &c .... dis 60&10 %
HANDLES.—Door or Thumb Latches.

Nos	0	1	2	3	4	
Per doz	$0.90	1.00	1.18	1.35	1.50	dis 60&10 %

Roggin's Latches .... doz 35c.@40c. net
Bronze Iron Drop Latches .... doz 70@90c.
Jap'd Store Door Handles—Nuts, $1.60; Plate, 1.10; no Plate .... 88c.
Barn Door .... doz $1.60, dis 10 %
Wrought Chest .... dis 65&10 %
Surface Chest .... dis 55&10 %
Flush Chest .... dis 55&10 %
Lifting .... dis 50&10 %
Saw and Plane .... dis 40&10 %
Lippincott Cross-Cut Saw .... 20c. per pair
Hammer and Hatchet .... dis 25 %
Brad Awl .... gross, $2.00
Chisel, all kinds .... dis 50&10 %
Auger, assorted, gross, $5.00 .... dis 40 %
Auger, large, gross, $7.00 .... dis 40 %
Patent Auger, Ives' .... dis 25 %
Patent Auger, Douglass' .... set $1.25 net
Patent Auger, Swan's .... set 1.00 net

HAMMOCK CHAIRS.
White Mountain, per doz $27.00
" " Finished in red, per doz $25.00

HANGERS.
Cronk Hanger Co.—
No. 4, per doz. pair .... $12.00, 50&10 %
" 5, " " " .... 14.40, 50&10 %
" 6, " " " .... 18.00, 50&10 %
Iron clad track .... 9 cents per foot, 50&10 %
Barn door stays .... $3.00 per doz., 50&10 %
Anti-Friction Barn Door Hanger, doz. pair, 8.50 net
Cronk's Pat. Wire Cutter and Bender, 8 in., doz. pair .... $15.00 & 40 %
Cronk's Pat. Wire Cutter and Bender, 10 in., doz. pair .... $21.00 & 40 %
Barn Door, old patterns .... dis 60&10 %
Barn Door, New England .... dis 60&10 %
Climax (Anti-Friction) .... dis 50 %
Warner's .... dis 20 %
Richard's .... dis 20 %
Ridder .... dis 50 %
Paragon .... dis. 40 to 40&10 %
Smith .... 40 %

HATCHETS.
Underhill's .... 40&10 %
Price Solid Steel .... $6.00 net
Shingling, Nos. 1 2 3 .... doz $7.25 $8.00 $8.75
Claw, Nos. 1 2 3 .... doz 7.75 8.50 9.25
Lathing, Nos. 1 2 3 .... doz 7.50 8.00 8.50
Hammond's new list .... dis 40&10 %
Blood's .... dis 35
Hunt's .... dis 40
Russel's, low list .... dis 40

HAY KNIVES.
Gem .... doz $10.00
"Lightning" .... doz $18.00 net 20 %
Wadsworth's .... dis 40 %

HINGES
Blind Hinges—
Shepard's "Noiseless" .... dis 75, 10&5 %
" "Niagara" .... dis 80&2½ %
" "Buffalo" .... dis 80&5 %
" Clark's Genuine Pattern .... dis 80&5 %
" "Star" .... dis 80, 5&2½ %
" "Champion" .... dis 80&10 %
" "O. S.," Lull & Porter .... dis 75&10 %
" "Acme," Lull & Porter .... dis 75&5 %
" "Queen City" Reversible .... dis 75 %
Clark's Old Pattern .... dis 75, 10&5 %
Clark's Tip Pattern .... dis 75, 10&5 %
Huffers .... dis 50&10 %
Standard .... dis 80 %
Standard Lull & Porter .... dis 75&10 %
Gate Hinges and Latches—
Shepard's (Nos. 1, 2, and 3) and Clark's Genuine Pattern .... dis 60 10&5 %
Plate Hinges "Providence" { 8, 10&12 in .... 5c. ℔.
{ over 12 .... 4c. ℔.
Screw Hook and Strap. { 6 to 12 in .... 3½c. ℔.
{ 14 to 20 in .... 3¼c. ℔.
{ 22 to 36 in .... 2¾c. ℔.
Crown spring hinges, for screen doors, dis 60 %; for solid doors, single action, dis 45 %; for solid doors, double action, dis 55 %.
Crown Screen Door Latch .... gross $12, dis 55 %
Crown Christmas-Tree Holders, 2-inch, doz $9; 3-inch, $12 .... dis 50 %
Bickford Portable Pump .... each $6, dis 20 %
American Cake Mixer, No. 6 .... each $3.50, dis 20 %
American Tobacco Cutter .... doz $15, dis 30 %
A. M. Co. Clothes Wringer, No. 2 rolls, 10x1¾, doz ——; No. 2½ rolls, 12x1¾, $48; No. 2 Japan $41.00 doz.; No. 2 Galv. $22.00 doz.; No. 2½ Galv. $33.00 doz .... dis 20 %
Heavy Welded Hook { 8@12 in. $7.50 100 ℔. } dis
{ 14 in. & up, $6 100 ℔. } 20 %
Screw Hook and Eye { ⅝ & 1 in .... — } dis 20 %
{ ½ in .... $3.80 }
{ ⅜ in .... $2.45 }
{ ¼ in .... $1.50 }
Wrought Strap & T list, Dec. 20, '77 .... dis 70&10 %
Standard Spring Hinges, single and double action, dis. 60&10 %.

HOES.
Planters .... 60&10 %
Riveted Shank .... doz $5.00, dis 60&10 %
Grub .... dis 60&10 %
Hubbard, Bakewell & Co .... dis 60&10 %

HANDLES.
Axe, Pick, Sledge, Hammer and Hatchet .... dis 33⅓ %

HORSE NAILS.

Ausable: Nos.	5	6	7	8	9	10	
Plain, ℔	31c	28c	26c	25c	24c	23c	dis 20&10 %
Finish'd ℔	31c	28c	26c	25c	24c	23c	dis 20&10 %
Clint'n, P'n, "	23c	21c	20c	19c	18c		dis 20&10 %
Clint'n, Fin'd "	24c	22c	21c	20c	19c		dis 20&10 %
Essex, ℔	31c	28c	26c	25c	24c	23c	dis .... %
Putnam "	27c	24c	22c	21c	20c	19c	dis 5&10 %
Saranac "	26c	23c	21c	20c	19c	18c	dis %
Globe, "	26c	23c	21c	20c	19c	18c	dis 10&5 %
N'thw'n "	28c	25c	23c	22c	21c	20c	dis 10&10 %
Phœnix "	31c	28c	26c	25c	24c	23c	dis 40&10 %
Champlain Forged ℔	31c	28c	26c	25c	24c	23c	dis 40&5 %
Anvil "		10c	10c	10c	10c	10c	
A. C., ℔	28	25	23	22	21	21	dis 10, 10&5 %
C. B. K.	28c	25c	23c	22c	21c	21c	dis 10&5 %
New Haven	31c	28c	26c	25c	24c	23c	dis 50&10 %
Capewell	32c	28c	26c	25c	24c	23c	dis 20&10 %

HORSE SHOES.

Walker's Horse Shoes..........................$4.00 ₱ keg
Walker's Mule Shoes..........................$5.00 ₱ keg
Burden..$4.10 ₱ keg
Phœnix Light, Medium and Heavy Horse Shoes........$4.10 ₱ keg
Phœnix Mule Shoes..........................$5.10 ₱ keg
Bryden Forged Horse Shoes—
Frog Pressure..........................$5.00 ₱ keg
Calked..........................$5.25 ₱ keg
Special..........................$6.00 ₱ keg
Bryden Calked Mule Shoes..........................$6.00 ₱ keg
Perkins Horse Shoes..........................$4.10 ₱ keg
" Mule " ....$5.10 ₱ keg
Ox Shoes—Mt. Carmel Ox Shoes ......10 cts. ₱ lb.

ICE CREAM FREEZERS.

Peerless—3 quart, $4.50; 4 quart, $5.50; 6 quart, $7; 8 quart, $9; 10 quart, $12. Giant, with fly wheel, —14 quart, $20; 18 quart, $25; 21 quart, $30; 25 quart, $35; 30 quart, $40; 40 quart, $45. Discount, 50&10 %.

American—Discount 60 %.

2 qts.	3 qts.	4 qts.	6 qts.
$2.75	$3.25	$3.75	$5.00

Gem—Discount 65 %.

2 qts.	3 qts.	4 qts.	6 qts.	8 qts.	10 qts.	14 qts.
$3.75	$4.50	$5.50	$7.00	$9.00	$11 00	$14.00

Blizzard—Discount 70 %.

2 qts.	3 qts.	4 qts.	6 qts.	8 qts.	10 qts.	14 qts.
$3.75	$4.50	$5.50	$7.00	$9 00	$11.00	$14.00

Double Action Crown—Discount 60 %.

	8 qts.	10 qts.	14 qts.	18 qts.	24 qts.	30 qts
With crank...	$10.50	$13.00	$16.50	$21.00	$25.00	....
" fly-wheel.	13 00	16.00	20.00	25.00	30.00	$37.50

Crown—Discount 60 %.

2 qts.	3 qts.	4 qts.	6 qts.	8 qts.	10 qts.	14 qts.
$3.75	$4.50	$5.50	$7.00	$9.00	$11.00	$14.00

Star—Discount 60 %.

2 qts.	3 qts.	4 qts.	6 qts.	8 qts.	10 qts.	14 qts.
$3.75	$4.50	$5.50	$7.00	$9.00	$11.00	$14.00

Shepard's "Lightning"—1 qt., $2.50; 2 qt., $3 75; 3 qt., $4.50; 4 qt., $5.50; 6 qt., $7 00; 8 qt., $9.00; 10 qt., $11.00; 14 qt., $14.00. Dis. 65 %.
"Jumbo" Lightning (extra heavy)—14 qt., Clutch and Fly-wheel $20.00; 20 qt., Clutch and Crank, $23.00; 20 qt., Clutch and Fly-wheel, $28.00.
White Mountain..........................dis 50&20 %
Arctic..........................dis 50&33⅓ %

ICE CHIPPERS.

Crown..........................₱ doz $6.00, dis 2 : %
Star..........................₱ doz $3.00, dis 25 %

ICE SHAVE.

Gem..........................₱ doz $6.00, dis 25 %

KNOBS.

Carriage, (Jap'd 80 c ₱ gross)..........................dis 60&10 %
Base—Common..........................dis 30&10 %
Hemacite Door Knobs..........................new list, dis 35&5 %
Door Mineral.... }
Door Por. Jap'd.. } Same discounts as Door Locks.
Door Por. Plated. }
Door Por.......... }
Furniture Plain.............. 75c gross inch, dis 10 %
Furniture, Wood Screws..........................dis 25 %
Picture..........................dis 60&10 %
Hemacite, Picture..........................dis 35 %
Shutter, Porcelain.......................... 5 %

LADLES.

Melting & Skim'ng, Monroe's Pat. ₱ doz $4 dis 55&10%
Melting, C & C..........................dis 50&10 %

LANTERNS.

Owl Tubular, ₱ doz..........................$5 50 net

LAWN MOWERS.

Acme Buckeye, Easy & Excelsior, new list. dis 50&10 %
Bay State..........................dis 60&10 %

LINES.

Linen Fish..........................dis 50 %
Wire Clothes, Galvanized, 100 feet........₱ doz $3.00

LOCKS AND LATCHES.

Cabinet, Eagle.......... }
Cabinet, Gaylord........ } Changes made in list price of some numbers Jan. 1, 1881, dis 25&2 %
Cabinet, Bridgeport..... }
Cabinet, P. & F. Corbin..........................dis 40 %
Trunk, new list, Jan 1, 1881..........................dis 15&2 %
Yale Lock Co., Flat Key..........................dis 40 %
Plate..........................dis 33⅓&2 %

DOOR LOCKS, ETC.

Branford.......... }
Norwalk.......... }
Norwich.......... }
P. & F. Corbin.......... } List of May 4th 1887, 50&10& & 2% cash.
Russell & Erwin.......... }
Mallory, Wheeler & Co.......... }
Nimick & Brittan Mfg. Co.. }
Padlocks—Russell & Erwin.......... }
Mallory, Wheeler & Co.......... }
Norwich Lock Manf. Co.......... } dis 75 % and 2% for cash.
Wm. Wilcox & Co.......... }
Nimick & Brittan Mfg. Co.......... }
Wm. Wilcox & Co's Plate Locks..........dis 33⅓&2 %
Yale Lock Manf. Co's "Standard"..........dis 40 %
Romer's..........................dis 25@40 %
Conestoga..........................dis 80 & 10 %
Scandinavian, "Norwich"..........................dis 50&10 %
Nimick & Brittan's Burglar-Proof Locks....dis 50&25

MALLETS.

Penfield Block Co., Apple, Hickory and Lignumvitæ..........................dis 30 %
Ripley Mfg. Co..........................dis 30 %

MEAT CUTTERS.

American		3	A	4
$5.00	$7.00	$10.00	$12.00	$25.00

American, B, 50.00; 5, $60.00..........................dis 30 %

Dixon's (P. S. & W.) Nos.	1	2	3	4	
₱ doz	$14	$17	$19	$30	—dis 40 %

Perry's, Nos.	1	2	3	4	4 gr'd	5 gr'd	
Each	$3	4	5	11	13	30	dis

Woodruff's (P. S. & W.).......Nos.	100	150	
₱ doz.	$15	18	-dis 40 %

Hales'..........Nos.	11	12	13	
₱ doz.	$27	35	45	-dis 70&5 %

Beef Shaver, (Enterprise Manf. Co.).......dis 20&10 %

MOLASSES GATES.

Stebbins Patterns..........................dis 70&10 %
Stebbins Genuine..........................dis 66⅔&10 %
Stebbins Tinned Ends..........................dis 40&10 %
Chase's Hard Metal..........................dis 50&10 %
Self-Measuring, (Enterprise)..........................dis 20 %
Lincoln's Pattern..........................dis 66⅔&10 %
Weed's..........................dis 20 %

Bees Nos.	1	2	3	4
	$7	$8	$9	10....₱ doz

Bees, Japanned Finish..........................dis 60&10&10 %
Bees, Bronze Finish..........................dis 50&10&10 %

Perfection	⅜	⅝	1	1¼	1½	2	
	$9.50	$12.00	$14.00	$16.50	$20.00	$24.00	—50%

NUTS AND WASHERS.

	¼	5-16	⅜	½	⅝	¾	1
Square Nuts	9½	7	5½	4½	4¼	3¾	3¾
Hexagon Nuts	10½	10½	9½	7½	6½	5½	4½
Washers	8½	7½	5½	4½	4	4	4

PLAITING MACHINES.

Astor Plaiting Machine..........................each $15, dis 20 %
Crown Plaiting Machines..........................dis 25 %
6 in., $6; 10 in. $8 each.

PLANES AND PLANE IRONS.

Meriden Malleable Iron Co., iron planes ..dis 30&10 %
Bench, First Quality..........................dis 40 %
Bench, Second Quality..........................dis 50 %
Molding..........................dis 30 %
Bailey's (Stanley R. & L. Co.) New list, Jan. 1879..........................dis 20&10 %
The Stanley (S. R. & L. Co.) new list, January 1879..........................dis 20&10 %

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Railroad Supplies
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AMERICAN MACHINE CO.
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Prices guaranteed as low as any house in this line in the United States. Write for Catalogue.
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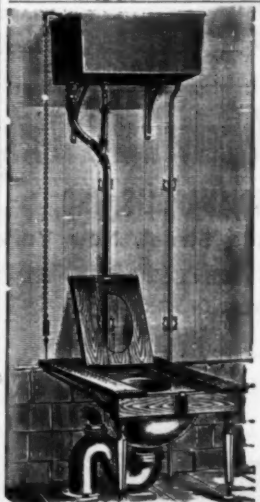

Short Neptune Hopper and Trap
WITH FORE AND AFTER FLUSH TANK
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Thousands of these Closets and Tanks have been sold and have given universal satisfaction.
The Automatic Seat Attachment and the Two Flushes of the Tank Insure a thorough cleansing of the Closet.
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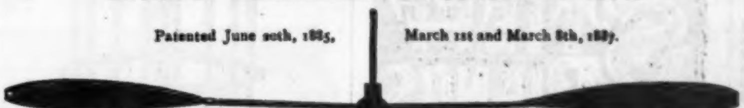
The Improved Keyless FLY FAN.
ENTIRELY REMODELED FOR SEASON OF 1889.

Patented June 20th, 1885, March 1st and March 8th, 1887.



NO KEY REQUIRED.

Complete in Itself.

Improvements for 1889 consist of—1st. Ornamental iron base piece. 2d. Patent adjustable wing holder, which admits of wings revolving at any angle, an important advantage where space is limited. 3d. The patent automatic stop-catch prevents unwinding when wings are taken off. 4th. Interior work strengthened and simplified, and specially adapted for easy motion and long wear. It embodies the desirable features of the old-style Fans, together with some important advantages in construction and price, which cannot fail to make it popular wherever offered. It is no longer a luxury but a necessity. It is self-acting; winds up by turning cross-piece at top of case; requires no key, thereby avoiding the great annoyance of looking for a misplaced or lost key. It drives all flies away by the shadow and movement of the wings while revolving, will run one hour at each winding, and can be re-wound at any time by simply turning the cross-piece at the top of case. It runs longer, is more effective, more durable and less trouble than the old-style high-price Fans that require a key. Price per dozen $24.00. Discount — per cent. Securely packed one dozen in case. Weight per case, 80 pounds. The most attractive, convenient and durable Fly Fan ever offered.

No Home Complete Without One.

Every Fan Guaranteed.

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Matthai, Ingram & Co., Baltimore, Md.
Originators of the Patent Fire-Proof Pieced Tinware, and manufacturers of a full line of Stamped, Pieced and Japanned Tinware and New Embossed Ware.

Bailey's ....dis 20&10 %
Plane Irons, Butcher's..........................$2.00 to 4
Plane Irons, Auburn Tool Co..........................dis 20 %
Plane Iron, Ohio Tool Co..........................dis 20 %
Plane Irons, Sandusky Tool Co..........................dis 20 %
Middlesex Mfg. Co., single and cut.......dis 20&25 %
Middlesex Mfg. Co., double..........................33⅓&10 %

PLIERS AND NIPPERS.

Button's Patent..........................dis 30&10 %
Hall's Pat. Compound Lever Cutting Nippers, No. 2, 5 in. $13.50; No. 4, 7 in., $21 ₱ doz..20&10 %
Gas Pliers..........................dis 50 %
Acme Combined Plier and Wire Cutter, 4½-inch, $10; 6-inch, $12; 8-inch, $15; 10-inch, $24..dis 50 %
Acme Cutting Nipper, 12-inch, $2.25; 11-inch, $2; 10-inch, $1.75; 8-inch, $1.50; 6-inch, $1.25 each..40 %

PLUMBS AND LEVELS.

Disston's..........................dis 45 %
Stanley R. & L. Co.'s Pat. Adjustable.dis 65&10&10 %
Stanley R. & L. Co.'s Non-Adjustable.dis 65&10&10 %
Chapin's Patent Adjustable..........dis 65&10&10 %
Chapin's Non-adjustable..........dis 65&10&10 %
Standard Rule Co.'s New Adjustable.....dis 65&10 %
Standard Rule Co.'s Non-Adjustable.....dis 65&10 %
Pocket Levels..........................dis 65&10 %

PRESSES (Fruit and Jelly).

Shepard's "Queen City"..........................dis 40 %

PUNCHES.

Avery Revolving Punch..........................dis 30&10 %

RAIL.

Sliding Door, Wrought Brass......₱ lb. 35c. dis 20 %
Sliding Door, Bronzed Wrt. Iron...₱ ft. 12c. dis 35 %
Sliding Door, Iron, Painted......₱ ft. 4c. dis 20&10 %

Barn Door....inch..........	⅝	¾	⅞	
Per 100 feet..	$2.50	3.00	4.00	—dis 10 %
B. D. for N. E. Hangers—	Small.	Med.	Large.	
Per 100 feet..........	$2.15	2.70	3.25	net.

RIVETS.

Iron and Tinned, new list, Nov. 17, 1887.....dis 50 %
In bulk, new list, Dec. 10, 1881..........................dis 55 %
Copper Rivets and Burrs..........................dis 50 %

Nos..	7	8	9	10	11	12	13	14	15
₱ lb..	49c.	50c.	52c.	54c.	56c.	58c.	60c.	65c.	70c.

RIVET SETS..........................dis 50 %

RODS.

Stair, Brass..........................dis 25 %
Stair, Black Walnut..........................50c. ₱ doz.—net

RULES.

	Boxwood.	Ivory.
Chapin's..........	dis 80 %	dis 50&10 %
Standard..........	dis 80 %	dis 50&10 %
Stanley..........	dis 80 %	dis 50&10 %

Stevens & Co.........dis 80%. Ivory..........dis 50 %
Stevens & Co. Miscellaneous..........................dis 50&10 %

SAD IRONS.

Self-Heating, Charcoal..........................₱ doz 9.00 net
Mrs. Pott's Irons..........................dis 35 %
Enterprise Star Irons, new list, July 20, '82....dis 35 %
Comb'd Fluter and Sad Iron....₱ doz $15.00, dis 15 %
Common Sad Irons..........................2½c ₱ lb

SAND PAPER.

Baeder & Adamson's Flint, 00@1½ ..$4.50 ₱ r'm. }
Baeder & Adamson's Flint, 2, 2½&3. .5.00 ₱ r'm. }
Baeder & Adamson's Flint, Assort'd 4.75 ₱ r'm. } dis
Baeder & Adamson's Star.......... 3.75 ₱ r'm. }
Baeder & Adamson's Emery ₱ r'm $6.50@11.50 }

SASH LOCK.

Clancy's No. 100, per gross.......... dis 20%
Nimick & Brittan Mfg. Co.......... dis 50%
Automatic Double-Action Sash Lock and Holder, $7.00 ₱ gross.

SASH CORD.

Common..........................₱ lb. 14c. net
Patent..........................₱ lb. 17c@18c. net
Silver Braided Lake Hemp.........₱ lb. 50c, dis 10 %
Silver Braid, Lake White Cotton, ₱ lb. 50c. dis 10 %
Silver Braided Lake Drab Cotton, ₱ lb. 55c. dis 10 %
Silver Lake Cable Laid, Bengall Unbleached Hemp, 17 cts..........................dis 10 %
Russian Hemp, 19 cts..........................dis 10 %
Italian Hemp, 24 cts..........................dis 10 %
Sampson Braided, white cotton..........................dis 50 %
" " drab cotton..........................dis 50 %
Massachusetts..........................25c. ₱ lb.

SASH WEIGHTS.

Solid Eyes, in 500-lb. lots and over, ₱ lb. 1¼c. net

SAUSAGE STUFFERS OR FILLERS.

Miles..........................₱ doz. $20, dis 40&5 %
Perry..........₱ doz., No. 15; No. 2, $21....dis 35 %
Enterprise Mfg. Co..........................dis 30 %
Monarch..........................dis 40 %

SAWS.

Boynton's Lightning Cross Cuts, new list....35c. net
Boynton's Circular and Mill..........................dis 40 %
Boynton's Ice..........................dis 25 %
Boynton's Lightning Hand, Panel and Rip...dis 25 %
Disston's Circular..........................dis 40 %
Disston's Mill..........................dis 40 %
Disston's Cross Cut..........................dis 40 %
Disston's Hand, Panel, Rip, &c..........................dis 20 %
Hubbard, Bakewell & Co. Circular Saws...dis 40&5 %
Hubbard, Bakewell & Co. Cross Cut..........30c. ft.
Hubbard, Bakewell & Co., One-Man's, X Cut dis 40&5 %
Hubbard, Bakewell & Co., Mill Saws. ....dis 40&5 %
Peace Circular and Mill..........................dis 40 %
Peace Hand, Panel and Rip..........................dis 25 %
Peace Cross Cuts..........................dis 35 %
Peace Band Saws, all widths..........................dis 20 %
Webster Cross Cut, with handles,..........₱ ft. 18c.
Griffin's Hack Saws and Blades..........................dis 50 %
F. W. Swett's Band Saw Blades..........................dis 20 %
Atkins' Circular..........................dis 50 %
Atkins' Silver Steel Diamond X Cuts.......₱ ft. 75c.
Atkins' Concave Tooth Dexter X Cuts.....₱ ft. 55c.
Atkins' Special Steel Diamond X Cuts.....₱ ft. 30c.
Atkins' Tuttle and Electric Tooth X Cuts..₱ ft. 30c.
Atkins' Hollow Back X Cuts..........₱ ft. 22@30c.
Atkins' Shingle, Mulay, Drag, &c..........................dis 45 %
Diamond Hack Saw..........................dis 25 %

SAW FRAMES.

White..........................₱ doz $2.25, dis 10 %
Saw Rods..........................See list, dis 20&10 %

SAW SETS.

Stillman's Genuine....₱ doz $5.00 and $7.75, dis 40 %
Stillman's Imitation..........₱ doz $3.25, dis 40 %
Common Lever..........................₱ doz $2.00, dis 40 %
Leach's..........No. 0, $8.00; No. 1, $15; dis 15 %
Hammer, Hotchkiss..........................$5.50, dis 10 %
Aiken's Genuine..........................$15.00, dis 30&10 %
Aiken's Imitation..........................$7.00, dis 35 %
Disston's..........................dis 20 %
Morrill's..............No. 1, $15; No. 5, $20; dis 40 %
Atkins' Adjustable..........................₱ doz $8.00
Atkins' Criterion..........................₱ doz $5.50
Atkins' Criterion for Hand Saws..........₱ doz $7.50
Avery Saw-set and Punch..........................dis 40 %

SAW TOOLS.

Atkins' Excelsior..........................₱ doz sets $8.00
Atkins' Perfection..........................₱ doz sets $5.00

SCALES.

Hatch, Counter, No. 171..........₱ doz $20, dis 33⅓ %
Hatch, Tea, No. 181..........₱ doz $25.00, dis 33⅓ %
Union Platform, Keystone..........................$8, dis 45 %
Chicago Scale Co..........................Special dis
Fairbanks'..........................dis 20 %
Forsyth Scale Co..........................dis 45 %
Howe's..........................dis 20&10 %
Chatillon's Grocers'..........................dis 40&10 %
Chatillon's Eureka..........................dis 25 %
Family Universal..........................dis 50 %
Family Favorite..........................dis 50&10 %
Family Turnbull's..........................dis 50&10 %
Scale Beams, List of Jan. 22, 1886..........................dis 60 %

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Stanley Rule & Level Co.'s Var. Hdls. .... dis 60 %
Stanley Rule & Level Co.'s Black Hdls. .... dis 50 %
Ratchet .... dis 33⅓ %
Clark's Patent .... dis 25 %
Shepardson .... dis 25 %

SPOKE TRIMMERS.
Bonney's .... ⅌ doz $10, dis 50 %
Stearns' .... ⅌ doz $9, dis 50&10 %
Ives' .... No. 1, $15; No. 2, $12 ⅌ doz, dis 55&10 %
Douglass' .... ⅌ doz $9, dis 20 %

SILVER PLATED WARE.
Wm. Rogers Manf. Co. .... dis 50&10 %
Holmes, Booth & Hayden .... dis 50&10&5 %
Wallace's Steel Silver Plated .... dis 33⅓&10 %
Rogers Bros 1847 .... dis 50&5 %
C. Rogers & Bro. .... dis 50&10 %

SCREWS.
Standard new list, March 1.
Flat Head Bright .... 50 %
Round Head Blued .... 40 %
Round Head Bright .... 40 %
Flat Head Brass .... 45 %
Round Head Brass .... 35 %
Flat Head Blued (add 5 % to net) .... 50 %
Brass and Silver Capped .... 40 %
Japanned Flat Head .... 40 %
Coach, Patent Gimlet Point .... dis 75 %
Coach, Common or Lag .... dis 75 %
Bed .... dis 25 %
Machine, Flat Head, Iron .... dis 55 %
Machine, Round Head, Iron .... dis 50 %
Bench, Iron .... dis 55&10 %
Bench, Wood, Beech .... ⅌ doz $2.25, dis 10 %
Bench, Wood, Hickory .... dis 20&10 %
Hand, Wood .... dis 25&10 %
Hand Rail, Sargent's .... dis 60&10 %
Hand Rail, Humason, Beckley & Co.'s .... dis 40&10 %
Hand Rail, Am. Screw Co., list Jan. 1, '81 .... dis 70 %
Jack (Wilson's) .... dis 25 %

SCREEN FRAMES AND FIXTURES.
Standard Window Screens No. 1, ⅌ doz $4; 2, $5
" Door " No. 5, $15; dis 50&10 %
" Window Corner Irons, No. 3, doz. st's, $2
" Door " " No. 6, " " $3
dis 50&10 %
" Door Latches, ⅌ dozen, $3.60 .... dis 30 %
Porter's Patent Window and Door Screen Frames:

PER DOZ. SETS.	In White.	Im. Bl'k Walnut.	
No. 20	$2.75	$3.25	dis 33⅓ %
No. 21	2.25	4.00	
No. 22	5.50	6.75	
No. 23	6.00	7.50	
No. 30	9.00	11.00	

Porter's Corners— (dis 33⅓ %)
No. 0. Corners and Sticks complete for a three-foot window, ⅌ doz sets $4
No. 1. Set for Window, ⅌ doz sets Bronzed, $2.40; Nickel, $5.60
No. 1½. " " ⅌ doz sets, Bronzed, $3.25; Nickel, $7.50
No. 4. " " ⅌ doz sets, Bronzed $4.00; Nickel, $8.00
No. ½. " " or door, ⅌ doz sets, Bronzed, $1.20; Nickel, $3.00
No. 4½. " " or Door, ⅌ doz sets, Bronzed, $2.00; Nickel, $4.00
No. 2½. " Door, ⅌ doz sets, Bronzed, $6.75; Nickel, $15.00
No. 3. " " ⅌ doz sets, Bronzed, $12.00; Nickel, $24.00
Boughton's Adjus. Window and Door Screens .... dis 25 %
Boughton's Adjus. Window and Door Frames .... dis 20 %
Window screen frames (Stuart's) .... dis 25 %

SHEARS AND SCISSORS.
American (Cast) Iron .... dis 70&10 %
Pruning .... see Pruning Hooks and Shears
Barnard's Lamp Trimmers .... ⅌ doz $4.00
Tinners' .... dis 20%
Massachusetts .... dis 80&10 %
Seymour's .... dis 60&10 %
Jersey Shears .... dis 80 %
J. Wiss & Son, Nickle, 50&5 %; Japanned, 60&10 %
O. S. Co. Brand—
Full Nickel .... dis 65&10 %
Jap. Handles, Nickel Blade .... dis 75&10 %

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Sliding Door, M. W. & Co., List .... dis 45&2 %
Sliding Door, R. & E. list .... dis 60&2 %
Sliding Door, Patent Roller .... dis 60&10&2 %
Sliding Door, Pt. Roller, Hatfield's .... dis 60&10&2 %
Sliding Door, Russell's Anti-Friction .... dis 60&10&2 %
Also see Hangers.

SHOVELS AND SPADES.
Ames, New List, November 1 1885 .... dis 20 %
Griffiths .... dis 50&5 %
Remington's (Lowman's Patent) .... dis 30 %
Rowland's .... dis 60 %
Lippincott, new list .... dis 25 %
Hussey, Binns & Co. .... dis 25 %

SILVER PLATED HOLLOW WARE.
Wm. Rogers Manf. Co. .... dis 30 %
Meriden Brittania Co. .... dis 40 %

SOLDERING IRONS AND COPPERS.
Covert's Soldering Irons .... dis 35
Covert's Adjustable Coppers .... dis 35

SPOONS.
Britannia .... dis 60, 10&10 %
Tinned, Iron, Table and Tea .... dis 65 %
Tinned Iron Basting .... dis 30 %
German Silver .... dis 40&5 %

STONE.
Hindostan No. 1, 4c.; Axe, 5c .... net
Sand Stone .... ⅌ ℔., 6c., dis 33⅓&10 %
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Washita Stone, Slips .... No. 1, ⅌ ℔., 45c. net.
Arkansas .... $1.50 ⅌ ℔., net

SQUARES.
Steel .... dis 60&10 %; full cases, dis 70&10 %
Iron .... dis 60&10 %; full cases, dis 70&10 %
Nickel Plated .... add $2.50&$4 ⅌ doz net.
Try Square and T Bevels .... dis 50&10 %
[illegible]'s Try Square and T Bevels .... dis 20 %
Avery Flush Bevel Squares .... dis 30&5 %
Avery Flush Bevel Protractors .... dis 30&5 %

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American Iron Carpet Tacks, all kinds .... 72½&10 %
Steel Carpet Tacks, all kinds .... 72½&10 %
Swedes Iron Carpet Tacks, all kinds .... 72½&10 %
Swedes Iron Tacks .... 67½&10 %
Swedes Iron Upholsterers' Tacks .... 67½&10 %
Tinned Swedes Iron Tacks .... 67½&10 %
Tinned Swedes Iron Upholsterers' Tacks .... 67½&10 %
American Iron Cut Tacks .... 70&10 %
Gimp and Lace Tacks .... 67½&10 %

FOR ALL KINDS IRON AND STEEL
ROOFING
CEILING, SIDING, IRON DOORS, SHUTTERS
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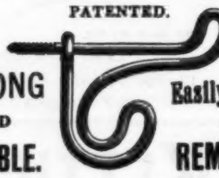
Wire Coat and Hat Hooks.
PATENTED.
STRONG AND DURABLE.
Easily Put up OR REMOVED.

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SIZES: 2, 2½, 3 AND 3½ INCHES.
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FOR SALE BY
WM. H. COLE & SONS, Baltimore, Md.

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Simple! Efficient! Durable!

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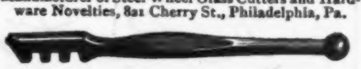

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STEARNS' NEW BENCH DRILL

WITH NEW ADJUSTABLE BED PLATE.
26½ inches high. Weight 29 lbs. Drills up to ½ inch. Run of screw 3½ inches. Extension crank for large drilling. Chuck holds ⅜ round or tapered brace drill. Spindle feeds quickly to work.
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Udell Woodenware Works
INDIANAPOLIS, IND.
79 Reade Street, New York
Udell's Patent Excelsior Broom Stand.
BEST IN THE WORLD.

The accompanying cut represents the most perfect Broom Stand ever invented. The top wheel, through which the brooms are put, and the braces by which it is fastened to the standard are of the *best malleable iron*. The base wheel is made of hard wood, varnished, and is securely braced to the standard. There is no danger of breakage when in shipping order, as the top section of the standard is taken out and placed inside the wheels, the main part of the stand being shipped set up ready for use. Every stand is mounted on substantial casters. Write for our catalogue of Specialties for the Hardware and Woodenware Trade.

Tinned Gimp and Lace Tacks .... 67½&10 %
Copper Tacks .... 33⅓&10 %
Copper Finishing and Trunk Nails .... 33⅓&10 %
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Finishing Nails .... 60&10 %
Trunk and Clout Nails .... 60&10 %
Tinned Trunk and Clout Nails .... 60&10 %
Basket Nails .... 60&10 %
Chair Nails .... 60&10 %
Zinc Glaciers' Points .... 40&10 %
Common and Patent Brads .... 60&10 %
[illegible] Nails and Miners' Tacks .... 60&10 %
Tinned Capped Trunk Nails .... 50&10 %
Looking Glass Tacks .... 45&10 %
Picture Frame Points .... 45&10 %
Leathered Carpet Tacks .... 45&10 %
Brush Tacks .... 45&10 %

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Common and Ring .... dis 20 %
Ives' Tap Borers .... dis 15&10 %
Enterprise Mfg. Co. .... dis 25 %

TOBACCO CUTTERS.
Enterprise Mfg. Co (Champion) .... dis 20&10 %
Wood Bottom .... ⅌ doz $5.50
All Iron .... ⅌ doz $9.50, dis 40&5 %
Wilson's .... dis 30 %

THERMOMETERS.
Tin Case .... dis 75&10 %
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Winsted .... ⅌ ℔ 9c. dis 5 %

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Game, Oneida Pattern .... dis 60&10&10 %
Game, Blake's Patent .... dis 40&10 %
Mouse, Wood, Choker .... ⅌ doz holes, 18c
Mouse, Round Wire .... ⅌ doz $1.50, dis 10 %
Mouse Cage, Wire .... ⅌ doz $2.50, dis 10 %
Mouse, Catch-em-alive .... ⅌ doz $2.50, dis 10 %
Cyclon Mouse .... ⅌ doz 60 cts.
Ideal Mouse .... ⅌ doz $1.00
Boss .... ⅌ doz $9.50
Rat, "Decoy" .... ⅌ doz $10.00, dis 10 %
Delusion Mouse, per doz $1.50
Ideal .... $13.50 ⅌ gross

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Lothrops' Brick and Plastering .... dis 30 %
Reed's Brick and Plastering .... dis 15 %
Disston's Brick and Plastering .... dis 20&10 %
Clement & Maynard's .... dis 20 %
Worrall's Brick .... dis 20 %
Brades & Walby's .... dis 20 %
Garden .... dis 35 %
Rose's Brick .... dis 15 %

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Handy Truck .... $1.50 net
Penfield Block Co.'s list, 1880 .... dis 30 %
Peerless, with Cogs, No. 3 .... $4 00
Peerless, with Cogs, No. 4 .... [illegible]
Eureka, No. 2 .... ⅌ doz 42 00

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Cheney's Combined Vise and Anvil .... dis 30 %
Solid Box—Wilson's .... dis 50&10 %
" Trenton .... dis 40&5 %
" Iron City Tool Works .... dis 50&10 %
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Bright and Annealed .... Nos. 0@18, dis 60&10 %
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Coppered .... Nos. 0@18, dis 65 %
Galvanized, Nos. 0 to 18 .... Market list dis 40 %
Tinned, Nos. 0 to 18 .... dis 60 %
Tinned Broom Wire, Nos. 18 to 25 .... dis 60 %
Annealed Fence, Nos. 8&9 .... dis 65 %
Annealed Grape, Nos. 10 to 14 .... dis 65 %
Fence Staples, Galvanized .... ⅌ ℔ [illegible]
Japanned Barb Fence .... ⅌ ℔ [illegible]
Galvanized Barbed Fence .... ⅌ ℔ [illegible]
Buck Thorn Galvanized .... ⅌ ℔ 5½ c
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Standard Penny Nails .... $2.90 Base.
Wire Nails List, November 16, 1888 .... dis 70 %

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Baxter's Adjustable "S," list Jan., 1880 .... dis 35 %
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Universal, XX, No. 2 .... [illegible]
Universal, XX, No. 1½ .... [illegible]
Universal, XX, No. 1 .... 65.00
Universal, XX, No. 8 .... each 12.75
Universal, XX, No. 10 .... each [illegible]
Universal, XX, No. 12 .... each [illegible]
Universal, XX, No. 22 .... each [illegible]
Peerless, no Cogs, No. 1 .... [illegible]
Peerless, with Cogs, No. 2½ .... [illegible]
Peerless, with Cogs, No. 2 .... [illegible]
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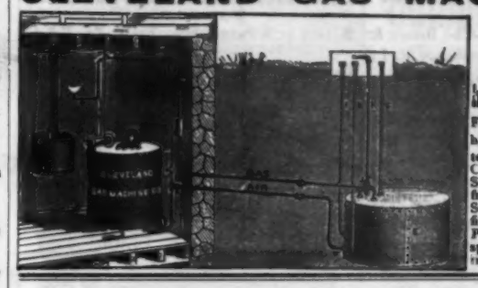

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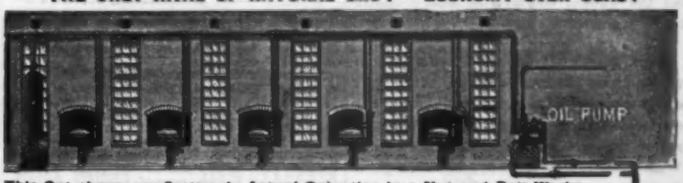

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THE Illinois Valley Electric Light & Power Co. has been organized at Ottawa, Ill., to operate in the cities of Ottawa, Marseilles and Seneca, all located on the Illinois river. In view of the fact that the water-power privileges at Ottawa are controlled by rival companies, the promoters of the new enterprise were compelled to look elsewhere for a location. The next best point being Marseilles, it became necessary to select a system which could be operated successfully at this distance. After some months of investigation the company closed a contract with the Heisler Electric Light Co., of St. Louis, whose long distance system was found admirably suited for use under these conditions. Ottawa is located near the center of La Salle county and is eight miles from Marseilles. Seneca is near the county line and is three miles from Marseilles, and thirteen miles from Ottawa. The amount of water-power available at Marseilles is practically unlimited. The plant now being installed will be of a capacity of about 700 30 candle-power lamps, but it will soon be increased to 2,000. It is expected that this capacity will be required for the public, commercial and domestic lights in the three cities.

THE THOMSON-HOUSTON SYSTEM IN BOSTON.—Those in whose mind there still clings some doubt as to the reliability of the electric railway will find in the following report of the Cambridge Division of the West End Street Railway, Boston, figures that prove conclusively that the electric railway can be depended upon. This road has a previous record of but 9 trips lost out of 1,179. The following report is for the month of April: Average number of motors in daily service, 8; round trips of motor cars, 2,720; time in service, motor cars, 3,232 hours; mileage of motor cars, 17,630 miles; round trips, one tow car, 2,720; round trips, two tow cars, 226; time in service, towed cars, 3,500 hours 30 minutes; mileage of towed cars, 19,149 miles; total car round trips, 5,666; total car mileage, 36,829 miles. Of the above round trips but 7 were lost. In addition to the new contracts mentioned lately the Thomson-Houston Co. has just contracted with the Naumkeag Street Railway Co., of Salem, Mass., to supply them with 6 motor tracks, each equipped with two 15 horse-power motors. They will be used on the line from Salem to the Willows. The company has also received an order from the East Harrisburg Passenger Railway for one double motor truck equipped with two 15 horse-power motors. Work is rapidly progressing on all the roads which the company has under contract, and very soon some of them will be put in operation. Work on the new line of the Revere Street Railway is being rapidly pushed toward completion. The piles are all driven, the cross timbers put on, and the track is nearly all in place. The line is double track and will extend from Winthrop Junction to Crescent Beach, and may be continued beyond there on the tracks of the West End Street Railway Co., of Boston.

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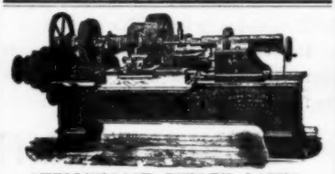

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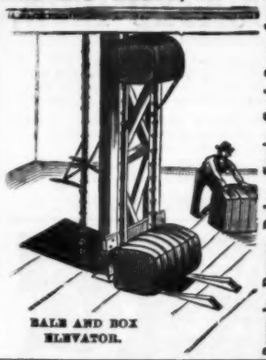

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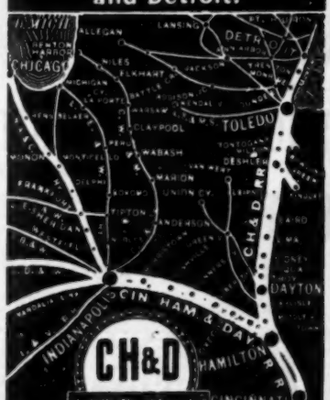

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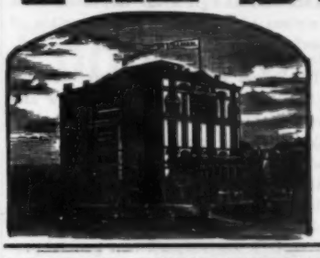

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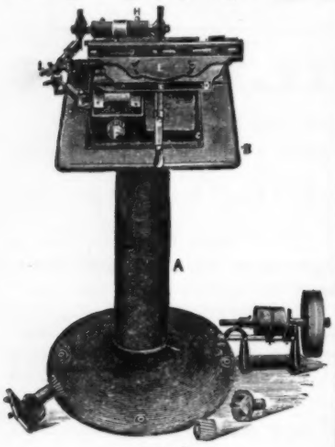

FIG. 1.

the position of one of the centers and driving it by an independant countershaft.

Fig. 1 represents the machine, showing reamer grinding; Fig. 2 illustrates face cutter grinding, and Fig. 3, bevel cutter grinding. In operation, reamers of any kind and shape are held between the centers J and moved at any speed along the face of the emery wheel by means of the feed-crank G, having a pinion engaging in a rack under the slide D.

The adjustment of tapers and bevels is by means of the table E pivoting at its center and having its bearing on the slide

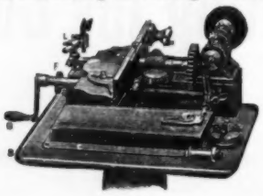

FIG. 2.

D, which is graduated at the arc immediately above the feed-crank G, and insuring absolute accuracy, the centers always remaining in line. The hand wheel F moves the slide E—to which the work is secured —to or from the emery wheel.

Greatest distance from center of spindle to table 10 inches. Swings 5 inches. Distance between centers 15 inches. Traverse or cut 12 inches. Will grind face or side cutters up to 8 inches diameter.

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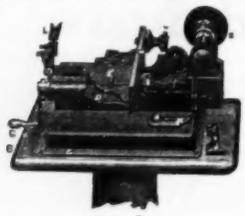

FIG 3.

base of Fig. 1 is secured to the table E and is so arranged that by turning the thumbscrew the cutter can be raised or lowered to exactly the right clearance for "backing off" the teeth—a distinct and very noteworthy feature. It is also arranged to swivel on its base, permitting the widest range of angle for bevel cutters, as illustrated on Fig. 3, and is graduated for the nicest adjustment. End and hollow mills placed in a cluck and applied to this divice can be ground with the greatest ease.

The twist drill attachment L will be found very convenient for grinding twist drills and small tools. It is adjustable to any height or angle. Diebel Sewing Machine & Trimmer Manufacturing Co., Third and Cumberland streets, Philadelphia, Pa., are the manufacturers.

A HANDY MANUAL.—The New York Lumber Trade Journal issues a little hand-book which the trade will find convenient. It is a directory of the trade in Eastern markets, and gives the inspection rules in various cities, with other information of a useful character.

THE season at Lake Chatauqua promises to be unusually lively. Several new and very elegant hotels have been erected at Lakewood, and arrangements are being made by the Erie Railway to give numerous excursions from the South and East to this delightful resort. Descriptive pamphlets and full information can be had by addressing W. C. Rinearson, assistant general passenger agent, Cleveland, O.

FIRE-ALARM TELEGRAPH—The Gaynor Electric Co., Louisville, Ky., issue an elegant descriptive circular with illustrated cuts of the Gaynor rapid fire-alarm signal system, which combines police, patrol and fire signal apparatus. The Gaynor system is one of the latest devised, and is therefore held to possess advantages over earlier apparatus. The circular is full and complete in the matter of details, and should be in the hands of municipal officials throughout the country.

IRON AND STEEL STATISTICS—The American Iron & Steel Association, 261 South Fourth street, Philadelphia, issue their complete annual summary of the American iron trade for 1888, with a review of the present condition of the business. To all engaged in the iron or steel trade the manual will prove invaluable. The annual issues of this publication are so well known that commendation is almost unnecessary. No one engaged in the iron or steel business can afford to be without the book.

MESSRS. J. A. DUNKLE AND S. F. DUNKLE, of Steelton, Pa., and J B. Ewing, of Harrisburg, Pa., have bought the entire plant and good-will of the Star Steam Heater Co., of Mount Joy, Pa., including the exclusive control of the patents. Large and commodious shops will at once be built at East End, Harrisburg, Pa., according to new plans especially adapted for their business. Three departments, viz: boiler-making, machine and foundry, will be fully fitted out with the best machinery. It is expected that the shops will be completed some time during July, when they will immediately be occupied. Meanwhile, operations have begun at the old shops in Mount Joy, Pa., where work is being pushed to its utmost to supply the demand. The address of the firm is Star Steam Heater Co., Harrisburg, Pa., or until August first, Mount Joy, Pa. H. H. Lindemuth, the patentee, has connected himself with the new firm, and will give the boilers his personal supervision.

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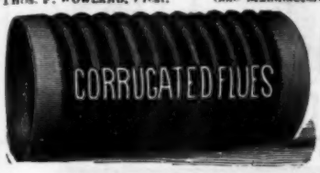

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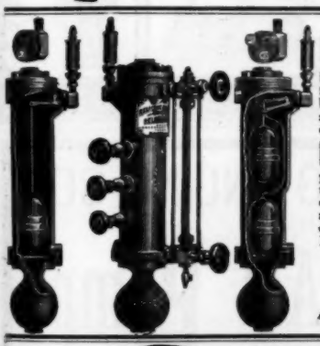

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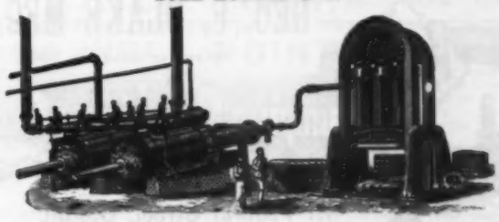

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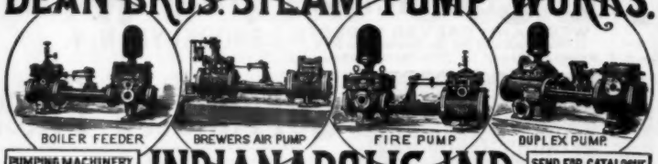

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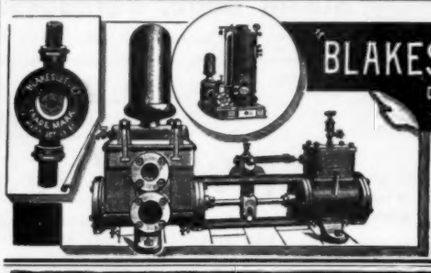

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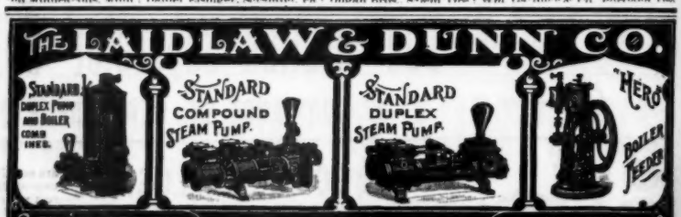

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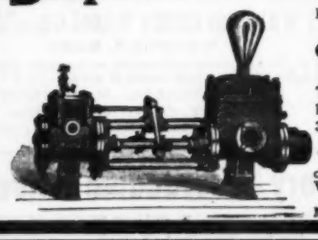

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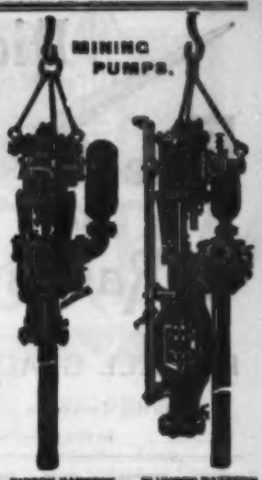

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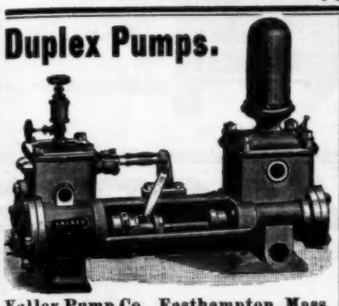

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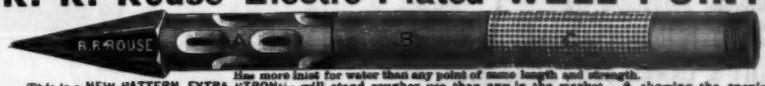

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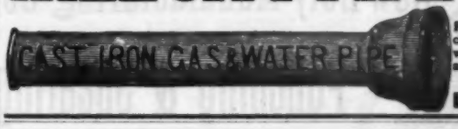

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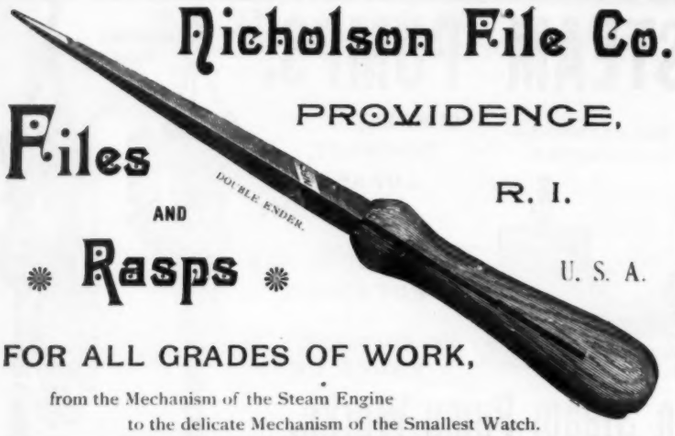

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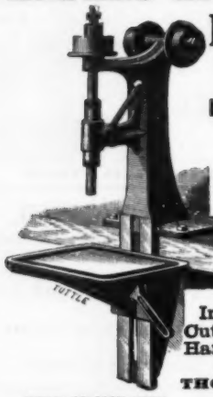

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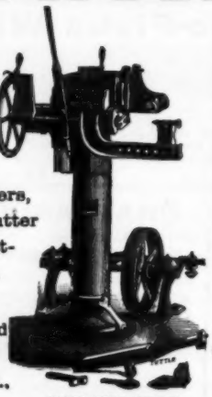

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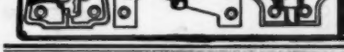

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